University of St Andrews

Department of Earth and Environmental Sciences

Lectureship in Earth Science– AC2012SB

Further Particulars for Applicants

The Department of Earth and Environmental Sciences is a dynamic group of 30 staff addressing fundamental questions about the past and present behaviour of the Earth, its biosphere, atmosphere and oceans, and planets. We have created an environment for collaborative, exciting science and research-led teaching, and desire to appoint a Lecturer to commence by June 2017 or as soon as possible thereafter. The area of appointment will be in Earth science that spans one or more of sedimentary geology and stratigraphy, palaeontology, structural geology, metamorphic geology, volcanology, Earth system modelling, and Earth resources; we are particularly interested in individuals who are capable of field- and lab-based research and teaching that intersects and complements our existing strengths:

- *Planetary System Evolution*: documenting the natural processes operating in the solid Earth and other rocky bodies in the solar system to reconstruct the physical, chemical and geological conditions under which they and life evolved.
- *Earth surface processes and environmental change:* studying the interlinked physical, biological and chemical processes that inform on the causal drivers and consequent effects of natural and man-made perturbations that modify Earth's surface and climate.

Outstanding analytical facilities in stable isotope analyses and biogeochemistry are supported by full-time technicians and include: one Neptune and two Nu Instruments MC-ICP-MS, two Mat-253 mass spectrometers, two class 100 clean rooms, 193-nm excimer laser, LA and solution quad-ICP-MS, XRD, XRF, IC, 514nm Raman and NIR-ATR spectroscopy, IRMS with CF-peripherals for C-N-O-H gas chromatography, Cavity Ringdown Spectroscopy (H/O), and macro- and micro-imaging using W-D EPMA, SEM and 2D-3D digital microscopy and reflected and transmitted-light microscopy. A Rockland 250-ton piston cylinder press underpins experimental petrology. A biogeomagnetism facility has a <5 nT shielded box, fluxgate magnetometers, magneto-optical microscope, *ex situ* magnetic susceptometers and a nonmagnetic shallow drill rig. There are capabilities for radio-/cathodo-/thermo-/photo-luminescence, with three automated Risø OSL/TL readers, and surface and near-surface land and marine geophysics using ssSONAR, GPR, ER, EP, IR, laser, seismic and GPS sensors. The Department also houses sedimentology and micropalaeontology sample preparation and analysis facilities. Field-based science is supported by survey, hydrological and soil sampling equipment, including a 21-metre research vessel.

Through the St Andrews Centre for Advanced Materials we access TEM, X-, W- and Q-band ESR, XP and NMR spectroscopy plus multi-laser Raman micro-mapping. We also collaborate in marine research with the European Marine Biology Research Centre, Scottish Oceans Institute and the Marine Alliance for Science and Technology for Scotland, and have competitive-based access to the UK's national laboratories including the Diamond synchrotron and the Natural Environmental Research Council (NERC) cosmogenic isotope, radiocarbon, isotope geoscience and ion microprobe facilities. The Department is a member of the IAPETUS NERC Doctoral Training Partnership. We are part of the School of Geography and Geosciences, and have overlapping research interests with the Environmental Change Research Group in the Department of Geography and Sustainable Development.

The Earth and Environmental Science teaching programme consists of two BSc Honours degrees, Geology and Environmental Earth Science with the former focussing on the solid Earth and the latter emphasising surface processes, an integrated Masters in Earth Science (MGeol), and an MSc in Geochemistry. It was ranked 1st in the UK for student satisfaction in the 2016 National Student Survey and 3rd for the Guardian, Complete University and Times & Sunday Times League Tables, and our graduates have some of the highest levels of employability across the UK. The Department is noted for its field-based training and the successful candidate would be actively involved in field teaching. See http://earthsci.st-andrews.ac.uk for more details.

Job Description

Job Title: Lecturer	Working Hours: Full Time
School/Unit: Department of Earth and Environmental Sciences	Grade/Salary Range: 7/£39,324 - £48,327 per annum
Reporting to: Head of Department	Reference No: AC2012SB
Job Family: Academic (Teaching & Research)	Start Date: 1 June 2017, or as soon as possible thereafter

Main Purpose of Role

To build and maintain a successful research and teaching programme within Earth and Environmental Sciences.

Key Duties and Responsibilities

Leadership

1. Build a research programme within the Earth and Environmental Sciences and provide driving roles (e.g. PI) in research projects and proposal submissions.
2. Mentor, support and advise junior research staff and assist in their academic career development, as appropriate.
3. Construct outreach and engagement portfolios that contribute to delivering impact of your academic activities.

Research

4. Engage in innovative, exciting research and scholarship that helps advance knowledge in the discipline; publish in peer-reviewed journals and other forms of scholarship.
5. Carry out initiatives in generating research income and assist in the development of research funding activities.
6. Supervise research projects for undergraduate and postgraduate students.
7. Engage in all other scholarly activities relevant to the discipline.

Teaching & Examining

8. Promote excellence in teaching and learning and encourage the application of innovative educational methodologies, as appropriate.
9. Teach and examine undergraduate and postgraduate courses, contribute to teaching field modules and continuing education courses.
10. Supervise undergraduate and postgraduate students.
11. Contribute to the regular evaluation and development of curricula and new curricular initiatives at both undergraduate and postgraduate levels.
12. Perform a role in the development of taught and research postgraduate studies.
13. Contribute to the maintenance of academic standards within the discipline.

General Contribution

14. Promote the Earth Sciences both inside and outside the University and contribute to the overall intellectual community of the University and society.
15. Develop appropriate links with professional bodies, agencies and companies.
16. Contribute to the administrative duties of the Department, and as a member of such committees as may be required within the University.

Please note that this job description is not exhaustive, and the role holder may be required to undertake other relevant duties commensurate with the grading of the post. Activities may be subject to amendment over time as the role, priorities and requirements evolve.

Person Specification

This section details the attributes e.g. skills, knowledge/qualifications and competencies that are required in order to undertake the full remit of this post.

Attributes	Essential	Desirable	Means of Assessment
Education & Qualifications (*technical, professional, academic qualifications and training required)*	PhD in Earth Science or a cognate discipline	Evidence of participation in relevant academic and professional associations/ bodies	CV, Application form
Experience & Knowledge (*examples of specific experience and knowledge sought*)	International standing as a researcher and scholar, commensurate with stage of career, as evident by publications, invited talks, research funding. (co-)supervision of postgraduate students.	Membership of national/ international committees.	Application form, presentation and interview
Competencies & Skills (*e.g. effective communication skills, initiative, flexibility, leadership, etc.*)	Ability to contribute to the development of the strategic vision of the Department. Expertise in solid Earth science, including field-based studies, commensurate with stage of career. Interpersonal and communication skills commensurate with supporting academic and administrative colleagues together with the demonstrated ability and willingness to work in a collaborative environment. The ability to teach, inspire and supervise undergraduate and postgraduate students; develop innovations in teaching methods; communicate ideas and concepts in an educational setting, including fieldwork; develop postgraduate supervision at PhD level.	Ability to teach GIS, experience in research with chemostratigraphy.	Application form, presentation and interview
Other Attributes/Abilities	Returnable in the Earth and Environmental Sciences Unit of Assessment for future UK REF-type exercises	Manuscripts in preparation.	Application form

Essential Criteria: requirements essential to undertaking the full remit of the role. Applicants who have not clearly demonstrated these will be rejected at the short-listing stage.

Desirable Criteria: requirements useful for the candidate to hold. When shortlisting, these criteria will be considered when more than one applicant meets the essential requirements.

Other Information

Informal enquiries can be made to: Dr Tony Prave, email: ap13@st-andrews.ac.uk.

The University of St Andrews is committed to promoting equality of opportunity for all and has a series of University wide diversity awards including the Athena SWAN Institutional Bronze Award, the European Commission HR Excellence in Research Award and LGBT Charter, see http://www.st-andrews.ac.uk/hr/edi/diversityawards/.

We encourage applicants to apply online at www.vacancies.st-andrews.ac.uk/welcome.aspx, however if you are unable to do this, please call +44 (0)1334 462571 for an application pack.

Please quote ref: AC2012SB

The University of St Andrews is a charity registered in Scotland (No SC013532).

Obligations as an Employee

You have a duty to carry out your work in a safe manner in order not to endanger yourself or anyone else by your acts or omissions.

You are required to comply with the University health and safety policy as it relates to your work activities, and to take appropriate action in case of an emergency.

You are required to undertake the Information Security Essentials computer-based training course and adhere to its principles alongside related University Policy and Regulations.

You are responsible for applying the University's equality and diversity policies and principles in your own area of responsibility and in your general conduct.

You have a responsibility to promote high levels of customer care within your own area of work/activities.

You should be adaptable to change, and be willing to acquire new skills and knowledge as applicable to the needs of the role.

You may, with reasonable notice, be required to work within other Schools/Units within the University of St Andrews.

You have the responsibility to engage with the University's commitment to Environmental Sustainability in order to reduce its waste, energy consumption and carbon footprint.

Academic Review Period for New Starts

The University operates a review period of 4 years for all academic appointments. Detailed objectives for Research, Teaching and Service, covering a period up to 4 years, specific to the individual, taking account of the stage of their career at appointment and reasonable expectations for the relevant academic discipline, including workload management, will be agreed with the individual within one month of the start date. The agreement will normally cover:

- Publications Strategy
- Engagement (including public and outreach)
- Grant applications
- Teaching

The review period is intended to be supportive and encouraging and the University will look for evidence of sustained high quality performance throughout. Details of the scheme can be found on the Human Resources website at:
http://www.st-andrews.ac.uk/staff/policy/hr/AcademicReviewforNewStartsAllAcademicStaff/

The University and Town

Founded in the early 15th century, St Andrews is Scotland's first university and the third oldest in the English speaking world.

Situated on the east coast of Scotland and framed by countryside, beaches and cliffs, the town of St Andrews was once the centre of the nation's political and religious life.

Today it is known around the world as the 'Home of Golf' and a vibrant academic town with a distinctively cosmopolitan feel where students and university staff account for more than 30% of the local population.

The University of St Andrews is a diverse and international community of over 10,500, comprising students and staff of over 120 nationalities. It has 8,200 students, just over 6,600 of them undergraduates, and employs approximately 2,540 staff - made up of c. 1,190 in the academic job families and c 1,350 in the non-academic job families.

St Andrews has approximately 50,000 living graduates, among them former Scottish First Minister Alex Salmond and the novelist Fay Weldon. In the last 90 years, the University has conferred around 1000 honorary degrees; notable recipients include Benjamin Franklin, Rudyard Kipling, Alexander Fleming, Iris Murdoch, James Black, Elizabeth Blackadder, Tim Berners-Lee and Hillary Clinton.

The University is one of Europe's most research intensive seats of learning. It is the top rated university in Scotland for teaching quality and student satisfaction. In the Research Excellence Framework (REF) 2014 the University was ranked top in Scotland for quality of research output and one of the UK's top 20 research universities.

St Andrews is consistently held to be one of the United Kingdom's top ten universities in university league tables compiled by The Times and The Sunday Times, The Guardian and The Complete University Guide. In the 2014/15 Times and Sunday Times Good University Guide, St Andrews is ranked 3rd in the UK, behind only Oxbridge. The same guide has named St Andrews its Scottish University of the Year in 2013 and 2014. The University has eight times been named the top multi-faculty university in the UK in the National Student Survey – a direct reflection of the quality of teaching, assessment and facilities. In international and world rankings St Andrews scores highly for teaching quality, research, international outlook and citations. In the 2014 Times Higher Education World Rankings St Andrews is 14th in the world for International Outlook, 33rd for research and teaching in Arts and Humanities and 81st for Citations. It is ranked 111th overall in the Times Higher Rankings and 88th in the QS University World Rankings.

Its international reputation for delivering high quality teaching and research and student satisfaction make it one of the most sought after destinations for prospective students from the UK, Europe and overseas. In 2012 the University received on average 12 applications per place. St Andrews has highly challenging academic entry requirements to attract only the most academically potent students in the Arts, Sciences, Medicine and Divinity.

The University is closely integrated with the town. The Main Library, many academic Schools and Service Units are located centrally, while the growth in research-active sciences and medicine has been accommodated at the North Haugh on the western edge of St Andrews.

As the University enters its seventh century, it is pursuing a varied programme of capital investment, including the refurbishment of its Main Library and a major investment in its collections, the opening of a research library, the development of a major arts centre, the refurbishment of the Students' Union, and the development of a wind-farm and green energy centre to offset energy costs.