

# Lectureship in Structural Geology

College of Science and Engineering

Department of Geology

Salary Grade 8 - £35,938 to £44,166 per annum

Open Ended Contract

Ref: SEN00277

At Leicester we're going places. Ranked in the top 20 universities in Britain our aim is to climb further. A commitment to high quality fused with an inclusive academic culture is our hallmark and led the Times Higher Education to describe us as "elite without being elitist"

We wish to appoint a research focused Lecturer in Structural Geology to join our lively and dynamic Department of Geology, which is internationally recognised for its research and teaching. You will have an excellent academic research record, including peer-reviewed quality publications and the potential to secure funding to support your research. You will be able to demonstrate clear potential to develop research and to undertake teaching, including practical classes and fieldwork, at all levels. A strong commitment to fieldwork in research and teaching is essential.

The post will start 1 January 2013

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## The University

There's never been a more exciting time to join us. At the University of Leicester, we are enjoying research success on a world stage and gathering the awards and plaudits to match.

A judge in a recent awards ceremony described Leicester as "elite without being elitist". We are proud to be elite. But we are at least as proud to be an inclusive and progressive university. This commitment to high quality, an inclusive academic culture and a belief in the synergy of teaching and research are our hallmarks.

Our approach to research yields great rewards. Our research impact, measured by citations per academic, is the sixth highest in the UK. Our success in the 2008 Research Assessment Exercise saw Quality Related research income rise by 18% placing us firmly amongst Britain's top 20 research universities by this measure.

For a University that believes teaching and research are synergistic, it is pleasing that the National Student Survey reveals that 91% of full-time students are satisfied with their courses. Consistently amongst the best in the country, this 2009 result is matched only by Cambridge amongst mainstream universities in England.

Currently a University of 23,000 students, with a turnover of £256m and 3,800 academic staff, our future is bright. Our Strategic Vision describes our plans to invest a billion pounds in our estate as we transform our campus. Already ranked in the top-15 universities in Britain, by 2015 we aim to rise further to become top ten.

It is a cornerstone of our success that we are the only top-15 UK university to meet Government benchmarks on inclusivity.

As a group of talented individuals, we are more diverse than ever and stronger for it. At Leicester, we are proud of our distinct approach, our achievements and our ambitious plans. If you share our approach then join us.

We are proud holders of the Athena Swan Bronze Award which recognises and celebrates good practice for employment in science, engineering and technology (SET) in higher education and research. The award reflects our commitment to the advancement and promotion of diversity and equality. We are actively seeking Silver and Gold awards.

<http://www.athenaswan.org.uk/html/athena-swan/>

## College of Science and Engineering

**Pro Vice-Chancellor and Head of College: Professor Martin Barstow, BA PhD CSci CPhys F.InstP FRAS**

This is an exciting time to join a dynamic new college and contribute to its development.

The College has around 440 staff, 2000 undergraduate and 900 postgraduate students, with an annual turnover of £40M. The new College is creating the academic and physical environment to enable scientists and engineers to work together across traditional boundaries to address some of the grand research challenges and to engage with increasing effectiveness with business and industrial partners.

The College is made up of seven research-led departments: Chemistry, Computer Science, Engineering, Geography, Geology, Mathematics, and Physics and Astronomy. Together, these departments teach approximately 20% of the University's campus based undergraduate students. Our students undertake diverse programmes of study, from human geography, through a range of laboratory-based subjects including engineering. Our departments have contributed to the University's ascent through national league tables with consistently excellent scores in the National Student Survey and a very strong performance in the 2008 RAE. Our departments also generate more than a third of the University's research income.

Our College has a reputation for research of international quality and is home to several specialist multidisciplinary, interdisciplinary and intra-disciplinary research centres. These centres included Space Research, Climate Change Research, Mathematical / Computational Modelling and Advanced Microscopy. Researchers within the College have international reputations and collaborate with esteemed colleagues throughout the world, making it an exciting environment for both teaching and research.

The College has led the development of High Performance Computing within the University culminating in the establishment of a dedicated centrally-funded HPC unit and the installation of the ALICE state-of-the-art £2M, 2048 processor super-computer. ALICE is freely available to all University staff for their research projects. The University has recently become host to one of the HPC centres forming the DiRAC national computing facility for particle physics, astronomy and cosmology.

Our students benefit from following best practice and working alongside leaders in their fields. Approximately a quarter of our undergraduate students go on to study for a higher degree. Our graduates are much sought after by employers – either by going directly into employment in the broad area of their degree subject, or pursuing successful careers in diverse areas such as education, commerce, IT and the public sector.

## Department of Geology

**Head of Department: Professor Mike Lovell BSc, MSc, PhD, FGS**

Geology at Leicester embraces geosciences, including geophysics, and is a dynamic and thriving department committed to excellence in research and teaching. The department has a strong international reputation and now wishes to strengthen its structural geology research through the appointment of a lecturer who can complement and develop our research strength and contribute to our innovative and student-centred structural geology teaching.

**The Department of Geology** was founded over 50 years ago and has 23 academic staff, 3 academically-related staff, and 14 support staff. The Department has a wide range of in-house analytical and interpretation facilities and, across the College of Science and Engineering, has access to extensive laboratories, workshops and expertise. It has approximately 300 full-time undergraduate students, 20 distance learning students, 40 PhD students, and 14 research fellows, associates and assistants.

The department is housed in the Bennett Building where considerable investment and refurbishment in both research and teaching has created a very stimulating and pleasant working environment for staff and students. The building includes offices, lecture theatres, resource areas, and extensive well-equipped laboratories and workshops. We have strong links with industry, and formal links with the British Geological Survey (BGS) and the NERC Isotope Geoscience Laboratory (NIGL) 19 miles to the north of Leicester at Keyworth, Nottingham, as well as with researchers worldwide.

**Teaching:** we offer a range of fully-accredited undergraduate 3-year BSc and 4-year MGeol courses in Geology, Geology with Geophysics, Applied and Environmental Geology, Geology with Palaeobiology, and a joint BSc course with the Geography Department in Geography-Geology. Year abroad options exist for several degree programmes. The department is well known for its field-based approach to geoscience teaching and for its exceptionally strong performance in the National Student Survey.

Further information on the department is available at: [www.le.ac.uk/gl](http://www.le.ac.uk/gl)

**Research** is structured for administrative purposes into 3 groups, Crustal Processes, Palaeobiology, and Geophysics & Borehole Research, but research projects often cut across these. All laboratory and analytical facilities are managed through Analytical Services, based within the Department. Increasingly collaboration across the College and University is encouraged. Further details on research are at [www.le.ac.uk/gl/re](http://www.le.ac.uk/gl/re)

**Facilities:** In addition to normal research and teaching facilities the department has its own networked computing facilities and access to the University's high performance computing facilities. The Department has its own modern analytical equipment facilities including: Hitachi SEM(with elemental mapping capability), Panalytical AXIOS XRF spectrometer, a heating-freezing stage for fluid inclusion microthermometry, a Bruker D8 Advance XRD with non-ambient sample chamber, and an X-ray Micro-CT scanner. We are currently purchasing a new quadrupole ICP-MS with laser-ablation facility, and refurbishing our analytical laboratories. Further details are available at: [www.le.ac.uk/gl/analytical](http://www.le.ac.uk/gl/analytical) In addition the Department has very strong links to the NERC Isotope Geosciences Laboratory at Keyworth, through two joint appointments: Professor Randy Parrish (Head of NIGL) and Professor Melanie Leng (Head of Stable Isotope Group).

## Your role

The aim of this appointment is to further develop structural geology and tectonics research and teaching within the Department; to contribute to the Department's submission to the forthcoming REF; to further strengthen the research base of the Department.

You will be responsible to the Head of Department of Geology and will undertake research, scholarship, teaching, and administration and other activities supporting the work of the Department and College, and developing and enhancing their reputations, both internal and external to the University. The duties of academic staff are flexibly organised and assigned by the Head of Department.

You will have demonstrated ability as a researcher through publications in leading peer-reviewed journals, and have potential for developing research funded by external agencies. You will also be someone who can undertake high quality teaching in the broad area of structural geology and tectonics.

In developing and enhancing collaborative research across the department and university the successful candidate will have research expertise and synergies with one or more of the following disciplines:

- Remote sensing of geology and structure/tectonics
- Neotectonics and/or GPS research into crustal deformation & natural hazards
- Geochronology and geochemistry applied to structural/tectonics problems
- Metamorphism and metamorphic petrology
- Ore genesis and mineral exploration
- Energy-related research (oil and gas exploration, CCS, Radioactive Waste disposal)
- Experimental rock deformation and mechanic
- 3D Seismic interpretation of crustal structure and deformation
- Analysis of core and borehole data

You will be expected to teach a range of class based modules and contribute to field based modules in geoscience, especially structural geology and tectonics, and geological GIS. An interest and/or experience in integrating structural geology with development of digital mapping and modelling techniques would be welcomed.

## **Principal Accountabilities**

### **Research**

- To undertake individual and collaborative research of high quality, consistent with the Departmental objective of all academic staff attaining an international research profile
- To secure external sources of funding to support research, either individually or in partnership with colleagues within and outside the University that will deliver outputs of international excellence in structural geology and tectonics
- To publish research outputs and to disseminate the results of research and scholarship in internationally recognised peer-reviewed journals
- To manage research projects within the University, including their financial control and to supervise research assistants and research students
- Consistent with the resources available and departmental and other obligations, to attend and present research findings and papers at academic and professional conferences, and to contribute to the external visibility of the Department and University

- To ensure that all research activities undertaken are in compliance with the 'Research Code of Conduct' operated by the University

### **Teaching**

- To give lectures, seminars, tutorials and other classes – including practical and field classes - as appropriate, in support of the required teaching obligations, and to supervise or co-supervise project work by undergraduate and postgraduate students
- To ensure that student feedback on teaching is sought, through questionnaires and other means, and to respond constructively to such feedback and to advice from peers
- To maintain a broad knowledge of up-to-date research and scholarship in relevant fields to ensure that teaching meets the standards expected within a research-led University
- To co-operate with colleagues in the review and development of the curriculum and in the design and launch of new courses, new degrees or other academic awards where appropriate
- To undertake academic duties (e.g. setting examination papers, marking, invigilation and pastoral support of students) required to sustain the delivery of high-quality teaching and an excellent student experience
- To support and comply with the University and Department teaching quality assurance standards and procedures, including the provision of such information as may be required by the Department, College or the University

### **Administration**

- To undertake such specific Department roles and management functions as may be reasonably required by the Head of Department (or such person(s) to whom responsibility may have been delegated)
- To attend Department meetings and to participate in other committees and working groups within the Department of Geology, the College of Science and Engineering, and the University, to which appointed, elected or requested
- To participate in relevant professional activities
- To engage in continuous professional development, for example, through participation in relevant staff development programmes
- To undertake, subject to agreement of the Head of Department and/or the University as appropriate, external commitments, which reflect well upon and enhance the reputation of the University
- To ensure compliance with health and safety requirements in all aspects of work

The duties and responsibilities outlined here are not intended to be an exhaustive list, but provide guidance on the main aspects of the post.

## **Qualifications, Knowledge and Experience Required**

### **Essential**

- A PhD in Geoscience or equivalent degree in a closely related subject\*
- Evidence of quality research output in structural geology and tectonics from more experienced candidates and/or evidence of strong research potential from less experienced candidates at the commencement of their career\*

- Knowledge and experience that complements or enhances research programmes within the department\*

### **Desirable**

- Experience in integrating structural geology with development of digital mapping and modelling techniques\*
- Expertise in metamorphic petrology
- Experience of teaching undergraduates and/or supervising PhD students\*
- Experience of initiating developments in the curriculum and taking responsibility for the effective and efficient delivery of required teaching programmes
- Success in attracting external research funds
- Evidence of relevant industry experience or awareness
- Complementary expertise to other current research in the department \*
- Complementary knowledge and experience to research programmes and/or themes within the College and University

## **Skills, Abilities and Competencies**

### **Essential**

- Ability or potential to initiate, develop, and deliver high-quality research and to publish in high quality peer-reviewed journals consistent with top ranking research groups\*
- Be able to identify areas of research collaboration and demonstrate the ability to form collaborations
- Evidence of a commitment and the ability to teach competently at undergraduate and postgraduate level in lectures, tutorials, and seminars and field classes and to supervise postgraduate students
- Good effective communication (oral and written\*) and presentation skills
- Evidence of an ability to work independently and as part of a team on research and teaching programmes
- Ability to plan, organise, implement, and deliver programmes of work

### **Desirable**

- Interests in the application of structural geology research, for example through industrial collaborations
- Good interpersonal skills
- Competence in IT and familiarity with a computerised environment
- Potential to lead and manage a research team
- Ability to network with industry and academia
- Ability to utilise and enhance the Departmental analytical facilities.

(\* Criteria to be used in shortlisting candidates for interview)

## Informal Enquiries

Informal enquiries are welcome and should be made to Professor Mike Lovell on [hodgeology@le.ac.uk](mailto:hodgeology@le.ac.uk) or 0116 252 3798. An information pack on the research interests of the academic staff is available from Gail Andrews, email: [ga16@le.ac.uk](mailto:ga16@le.ac.uk).

## Applications

For further information and to apply on-line, please visit our website: [www.le.ac.uk/joinus](http://www.le.ac.uk/joinus)

We use a web based, e-recruitment system, which allows you to apply on-line. Please upload a copy of your CV, a list of your publications and a covering letter which should include a statement about your research interests and the names and addresses of three referees. One of your referees should be your current or most recent employer.

**The closing date for this post is midnight on Sunday 30 September 2012.**

**We anticipate that interviews will take place on Friday 19 October 2012.**

Candidates short-listed for interview will be contacted by the University. If you do not receive a communication from the University within 4 weeks of the closing date, please assume that your application has been unsuccessful.