Associate Lecturer in Mathematics / Departmental Computer Officer
Mathematics

Closing date: 16 December 2018
Interview date: 21 February 2019
Vacancy reference: 7151
INTRODUCTION

The Department of Mathematics is seeking to appoint a 0.5 Associate Lecturer / 0.5 Departmental Computer Officer. The successful candidate will provide teaching at undergraduate and postgraduate level, especially in modules involving computational and numerical projects. As departmental computer officer, you will co-ordinate the purchase, installation and maintenance of the department’s computer equipment, support staff in their use of software, and represent the department on appropriate committees and user groups.
Main purpose of the role

- To lecture, lead seminars, tutorials and other forms of undergraduate and postgraduate teaching
- To develop and apply innovative and appropriate teaching techniques and material which create interest, understanding and enthusiasm amongst students
- To carry out on-going curriculum review, including module content and materials and contribute to the development of teaching and learning strategies
- To support departmental IT provision, including the purchase, installation and maintenance of hardware, and software assistance.

Key responsibilities
(Role holders will normally be required to undertake the duties below)

Teaching and Promotion of Learning

- To support the teaching objectives of the department by delivering teaching through allocated lectures, tutorials and other forms of undergraduate and postgraduate teaching. Set and mark coursework and exams, providing constructive feedback to students.
- To develop where appropriate revisions to existing modules or courses in terms of design, content, structure, forms of delivery, method of assessment
- To develop own teaching materials, methods and approaches, with guidance. Obtain and analyse feedback on own teaching design and delivery to facilitate this.

- To contribute to the development of new teaching approaches and course proposals and to the design of curricula which are academically excellent, coherent and intellectually challenging.
- To ensure that course design and delivery comply with the quality standards and regulations of the University and department

Administrative and support responsibilities

- To provide – with mentoring - supervision to students, giving advice on study skills and helping with learning problems.
- To identify the learning needs of students and define learning objectives.
- To supervise student projects, field trips and, where appropriate, placements
- To purchase, install and maintain departmental IT equipment, and to assist staff with its use and software.

Involvement in scholarship and development

- To investigate innovative teaching, learning and assessment methods and techniques in the sector, bringing new insights to the department
## Qualifications

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<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
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<tr>
<td>PhD in Mathematical Sciences or equivalent experience</td>
<td>Essential</td>
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<tr>
<td>Appropriate academic professional and teaching qualification or a willingness to complete the Postgraduate Certificate in Academic Practice</td>
<td>Essential</td>
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## Knowledge

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<tr>
<td>Detailed knowledge in computational mathematics sufficient to develop teaching and provide relevant learning support to students across different levels of academic ability</td>
<td>Essential</td>
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<td>Specialist knowledge of mathematical software and programming languages, including at least two of Java, Matlab, C++ and R.</td>
<td>Essential</td>
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<td>Knowledge of procuring specialist computer equipment</td>
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<td>Knowledge of system administration for Windows and/or Linux systems</td>
<td>Essential</td>
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## Skills, abilities and competencies

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<th>Essential / Desirable</th>
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<td>Highly developed communication skills to engage effectively with a wide ranging audience, both orally and in writing, using a range of media</td>
<td>Essential</td>
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<td>Ability to design and deliver teaching material either across a range of modules or within a subject area</td>
<td>Essential</td>
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<td>Ability to supervise the work of students, provide advice on study skills and assist with learning problems</td>
<td>Essential</td>
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<td>Ability to contribute to the design of course material, content and new teaching approaches in the department</td>
<td>Essential</td>
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<td>Ability to manage and deliver own teaching</td>
<td>Essential</td>
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<td>Ability to plan, manage, organise and assess own teaching contributions</td>
<td>Essential</td>
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## PERSON SPECIFICATION

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<th>Experience</th>
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<tr>
<td>Experience in teaching and learning in HE at undergraduate and/or postgraduate level or in an evidenced similar context</td>
<td>Essential</td>
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<td>Experience of using different delivery techniques to enthuse and engage students</td>
<td>Essential</td>
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<td>Evidence of successful planning and designing teaching material</td>
<td>Essential</td>
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<td>Experience of providing first-level support to computer users</td>
<td>Essential</td>
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<td>Experience in developing web applications with PHP</td>
<td>Desirable</td>
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### Personal attributes

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<tr>
<td>Attention to detail and commitment to high quality</td>
<td>Essential</td>
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<td>Creativity, initiative and judgement in applying appropriate approaches to teaching and learning support</td>
<td>Essential</td>
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<td>Collaborative ethos</td>
<td>Essential</td>
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<td>Positive attitude to colleagues and students</td>
<td>Essential</td>
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<td>Willingness to work proactively with colleagues in other work areas/institutions</td>
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<td>Ability to plan and prioritise own work in order to meet deadlines</td>
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<td>Commitment to personal development and updating of knowledge and skills</td>
<td>Essential</td>
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Housed within this world-class University, the Department of Mathematics combines leading mathematical and interdisciplinary research with high quality undergraduate and postgraduate teaching.

The Department of Mathematics is a single integrated unit. In the 2014 REF 80% of our quality profile was judged as 4* or 3*, while in the 2017 National Student Survey it was the highest-rated in the Russell Group both overall and on various individual measures. The department is a registered supporter of the London Mathematical Society’s Good Practice Scheme and is committed to providing a working culture in which both staff and students can reach their full potential. Our recent Athena SWAN Bronze Award acknowledges good practice in the promotion of women’s careers in mathematics.

At present, there are 50 academic staff, 14 research staff and nine administrative staff. There are about 650 undergraduate students enrolled in the Department as single subject or combined honours students, across a variety of programmes. There are also about 130 graduate students across five MSc programmes and a PhD programme.

MATHEMATICS TEACHING AT YORK

Teaching is mainly by means of lectures, with small-group tutorials, seminars or problems classes supporting each module. Each student is assigned a supervisor responsible for overseeing the student’s academic progress and general welfare. A normal teaching load includes three modules of 18 lecture hours each, as well as tutorials and seminars over 3 teaching terms of 10 weeks each. In addition, all staff supervise student projects, some of which (for taught postgraduates) run over the summer months. Administrative responsibilities are shared across all members of the department, with those carrying high administrative loads usually having reduced teaching loads. The department’s teaching is the responsibility of the Board of Studies, which consists of all teaching members of staff together with student representatives. You will spend approximately 50% of your time on managing departmental computer services, 40% on teaching, and 10% on scholarship.

MATHEMATICS RESEARCH AT YORK

The principal research areas in the department are Algebra, Geometry and Analysis, Mathematical Finance and Stochastic Analysis, Mathematical Biology and Chemistry, Mathematical Physics, Number Theory, and Statistics and Probability. Research groups run their own seminar series with visiting speakers, together with thriving series of study groups and internal research lectures. Teaching staff are encouraged to participate in the research culture of the department.

Details of the research groups in the department may be found at http://maths.york.ac.uk/www/Research
THE UNIVERSITY

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2018 it is the home of more than 17,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world’s leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and are ranked 16th in the Times & Sunday Times league table (2017). The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding 12 awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
THE UNIVERSITY

Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we've worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages.
THE CITY AND THE REGION

The City of York

Internationally acclaimed for its rich heritage and historic architecture, York's bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford's Tower and the Shambles - just a few of the many attractions.

But York isn't just a great place to visit - it's also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit www.visityork.org for more information on the city of York.

Shopping, culture and entertainment

York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools

Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location

York is one of Britain's best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King's Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire

The Lonely Planet guide recently declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 7151
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 16 December 2018

What will I need?

You will need to upload:
- your CV
- a letter describing how you meet the requirements of the job

You will also need details of 2 referees.

Help and assistance

Direct any informal queries to Prof Niall MacKay (niall.mackay@york.ac.uk) or Dr Henning Bostelmann (henning.bostelmann@york.ac.uk)

If you have any questions about your application, contact the HR Services team:

recruitment@york.ac.uk
+44 (0)1904 324835