Lecturer in Biophysics
Department of Physics

Closing date: 19 May 2017
Interview date: 8-23 June 2017—date to be confirmed
Vacancy reference: 5670
INTRODUCTION

A vacancy exists for a fixed term full time lecturer in biophysics for 12 months starting from 4th Sept 2017, in the group of Professor Mark Leake. This position has been funded as cover for Professor Leake who will be on research leave during that period. The Biological Physics Group was formed in 2013 with the appointment of Professor Leake as Chair in Biological Physics jointly appointed between the Departments of Physics and Biology at the University of York as part of our overall strategy of expanding activities in this research area. In addition the Professor Leake’s group there have been recent new appointment of a lecturer and research fellow in the Physics Department in the area of biophysics/biological physics, and there are several research groups in the Physics and Biology Departments whose research involves activities at the interface between the life and physical sciences.

Your position will be administratively homed in the Physics Department, however, you will engage in teaching and administrative roles to cover appropriate components as required of Professor's Leake's teaching and administrative duties during the period of this lectureship in both the Physics and Biology Departments. You will also be expected to engage in aspects of suitable research activities to complement those of Professor Leake's research group (for information on his group’s research activities see [www.single-molecule-biophysics.org](http://www.single-molecule-biophysics.org)). In particular, these are expected to include the supervision of undergraduate research projects in Physics and Biology Departments, as well as undergraduates on the Natural Sciences course. You should be able to place a strong emphasis on the application of physics to the investigation of challenging biological questions, and on building and sustaining close collaboration with colleagues in the life sciences. In addition, you should demonstrate the capacity to complement the research activities of other members of the Physics and Biology Departments. You should be ambitious, and have a demonstrated track record of competitive research and the capacity to teach across a broad spectrum of biological physics/biophysical science.
Main purpose of the role

- To lecture, lead seminars, workshops, tutorials, demonstrate and other forms of undergraduate and postgraduate teaching to cover Prof Leake's teaching responsibilities where appropriate.
- To undertake administrative responsibilities effectively to cover Prof Leake's teaching responsibilities where appropriate.
- To engage in research activities to complement Prof Leake's research activities, including the supervision of undergraduate research projects.

Key responsibilities

Research and Scholarship

- To develop and promote the research activities of the department by developing a personal research plan in collaboration with Prof Leake as part of his larger research team.
- To plan and undertake research activities in accordance with a specific project plan.
- To develop innovative research proposals, identify and obtaining external sources of funding.
- To publish original research in appropriate journals or other relevant media and attend meetings where appropriate for the purpose of disseminating research results or for personal development.

Teaching and Promotion of Learning

- To apply and where appropriate develop teaching materials, techniques and module design and take responsibility for the quality of the provision.
- To plan, deliver and critically review a range of teaching and assessment activities.
- To undertake academic supervision of students (including undergraduate research students) and act as a supervisor within own specialist subject area.
- To set and mark practical sessions, supervisions and examinations and provide constructive feedback to students.
- To identify areas where current teaching provision is in need of revision or improvement and propose and implement improvements.

Management and Administration

- To undertake the duties of a Module Co-ordinator and be responsible for the design, development and management of departmental teaching modules.
- To contribute to the recruitment and selection of research and teaching staff if required.
- To contribute to the administration and management of the department in cover of Prof Leake's responsibilities.
- To advise, supervise and give guidance to other departmental staff as appropriate.
- To develop and build internal and external contacts.

JOB DESCRIPTION

At a glance

Salary: Grade 7 scale, starting at £38,183 a year
Hours of work: Full time; 37 hours a week
Contract type: Fixed term for 12 months
Based at: Physics and Biology Departments, Heslington West
## PERSON SPECIFICATION

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>PhD in Science or Maths disciplines</td>
<td>Essential</td>
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<tr>
<td>Appropriate academic, professional or teaching qualification</td>
<td>Desirable</td>
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### Knowledge

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<th>Knowledge</th>
<th>Essential / Desirable</th>
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<tr>
<td>Detailed knowledge at the physical/life sciences interface 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>Knowledge of a range of research techniques and methodologies</td>
<td>Essential</td>
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<td>Knowledge of a range of teaching techniques to enthuse and engage students</td>
<td>Essential</td>
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<tr>
<td>Has research expertise in an area that will complement and enhance Prof Leake’s research activities</td>
<td>Essential</td>
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### Skills, abilities and competencies

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<tr>
<th>Skills, abilities and competencies</th>
<th>Essential / Desirable</th>
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<tr>
<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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<td>Ability to develop research objectives, projects and proposals</td>
<td>Essential</td>
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<tr>
<td>Highly developed oral and written communication skills, including ability to write and/or contribute to publications and/or to disseminate research findings using other appropriate media</td>
<td>Essential</td>
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<td>Ability to deliver presentations at conferences or exhibit work at other appropriate events internally and externally</td>
<td>Essential</td>
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### Experience

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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>Desirable</td>
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<td>Experience of using different delivery techniques to enthuse and engage students</td>
<td>Desirable</td>
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<td>Evidence of successful planning and designing teaching material</td>
<td>Desirable</td>
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<td>Evidence of dissemination of research findings</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, learning support and scholarly activities</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>
<td>Essential</td>
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<td>Ability to plan and prioritise own work in order to meet deadlines</td>
<td>Essential</td>
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THE DEPARTMENT

Department of Physics

The Department of Physics at York has 48 academic staff members, more than 40 postdoctoral Research Fellows and visitors, and 35 support staff. The student population comprises around 475 undergraduates and 110 postgraduates (mostly PhD). The department has expanded considerably in the last five years, with both staff and student numbers increasing significantly, accompanied by an on-going rise in research funding.

The Department has a lively and expanding research programme in several areas of physics, organised administratively within three large research areas: Condensed Matter Physics, Nuclear Physics and Plasma Physics and Fusion. The Department leads several inter-departmental ventures, including the Biological Physical Sciences Institute (BPSI) (www.york.ac.uk/physics/bpsi), which is a network comprising >100 researchers across multiple departments of the University which all engage in research activities at the life and physical sciences interface. In addition, the Department hosts the York Quantum Technologies Centre (YQTC) and the recently established EPSRC Quantum Communications Hub. There has been significant major investment in laboratories and facilities including the York-JEOL Nanocentre and the York Plasma Institute. There are excellent mechanical, computing and electronic workshop facilities, which support our research and teaching activities.

The Department offers both three year BSc and four year MPhys degree programmes in Physics, Theoretical Physics and Physics with Astrophysics; and joint degree programmes in Maths and Physics and Physics with Philosophy, as well as providing teaching components to the Natural Sciences degree programme. For postgraduates it offers a taught MSc in Fusion Energy, an MSc by Research and PhD degrees, including leading the EPSRC Centre for Doctoral Training in the Science and Technology of Fusion Energy.

The Department of Physics fully endorses and adheres to the University's policies on equality of opportunity, and in particular:

- has flexible working arrangements which exceed those stipulated by the University
- has demonstrated commitment to the University's policy on job sharing
- has been awarded both Athena Swan Silver and Champion status within the Institute of Physics’ Juno programme, the intention of which is to recognise and reward departments that can demonstrate they have taken action to address the under-representation of women in university physics and to encourage better practice for both women and men

Further information about the department is available at: http://www.york.ac.uk/physics.
Research and teaching in the Department of Biology at the University of York is of international excellence and global strategic importance (www.york.ac.uk/biology/). The Department is committed to strengthening our research and teaching expertise in research foci where we have recognised strengths: Ecology & Evolution, Plant Biology, Bioinformatics & Mathematical Biology, Infection & Immunity, Molecular & Cellular Medicine, Cell & Developmental Biology, Microbiology, Biochemistry & Biophysics.

The Department offers undergraduate degree programmes in Biology, as well as joint degree programmes in Biochemistry and in Biomedical Sciences, as well as providing teaching components to the Natural Sciences degree programme. The Department also runs a taught masters programme and provide a stimulating interdisciplinary research and training environment for our research students.

Following the 2014 REF the Department of Biology at York has again been placed in the Top 10 in the UK. It is 1st for impact outside academia - our research has had major influence on environmental policy, industry and health. This demonstrates our strengths across the biological sciences: from ecology to biochemistry, biotechnology and biomedical sciences.

In terms of teaching, Biology at York ranks consistently in the top 5 across the major UK University league tables, with - for example - fourth place in the Complete University Guide in both 2015 and 2016.

The Department of Biology covers the spectrum of contemporary biological sciences with no internal barriers, and collaboration within the Department is strongly encouraged. Our Department comprises approximately 65 academic staff, 85 research associates, 170 support (technical, professional and administrative) staff, 180 graduate students, and approximately 863 undergraduates. Several senior positions are funded by charities or industry.

The Department has successfully continued to establish new laboratory space and refurbish our existing space. A new £6M teaching wing opened in 2014 and a £16M phase two expansion have very recently opened for the academic year in 2016.

Staff working patterns are flexible and a formal flexitime system is in operation in the Department. The Department provides support and advice for staff taking maternity, paternity, adoption and parental leave, and the University has a nursery and a Child Care voucher scheme.

The Department strives to address gender inequalities and ensure that there is a culture that supports equality and encourages better representation throughout the department. Support for women at all stages of their career is recognised as being extremely important.

Further information about the department is available at: http://www.york.ac.uk/biology/
THE UNIVERSITY

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2016 it is the centre for almost 16,000 students across more than 30 academic departments and research centres. In over 50 years we have become one of the world’s leading universities and a member of the prestigious Russell Group.

The University has consistently been recognised as one of the leading Higher Education Institutes and is one of just six post-war universities which appear in the world top 100 (2013-14) and 15th in the Times & Sunday Times league table (2016). The University of York has won six Times Higher Education (THE) Awards and five Queen's Anniversary Prizes.

We are proud of our association with Athena SWAN, holding ten awards in support of women in science, with gold awards for Chemistry and Biology as well as 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 on 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.
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. With a compact and easy to get around design, York enjoys a safe, friendly atmosphere. The campus offers a wealth of facilities, which includes 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 space, 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 all staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University aims to offer a nurturing and supportive environment as an employer. Flexible working hours, nursery facilities, childcare vouchers, cycle to work scheme, generous holidays and an attractive pension scheme all make the University of York one of the region’s leading employers.

For further information please visit Rewards Extra.
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 5670
- Complete the online application form

You will need to submit your completed application by midnight (GMT) on 19 May 2017.

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 3 referees.

Help and assistance

Direct any informal queries to Professor Leake (mark.leake@york.ac.uk)

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

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