Associate Lecturer in Physics x3

Department of Physics

Closing date: 30 July 2019

Interview date: To be confirmed

Vacancy reference: 7798
INTRODUCTION

The Department places great importance on the quality of its degrees and the support – both academic and pastoral – provided to our students. The sustained popularity of our undergraduate programmes has resulted in the Department exceeding its anticipated student intake targets. In addition we have noted a disproportionately high entry into the Physics with Astrophysics programme necessitating primarily the development and updating of our astrophysics final year project provision.

In response we are seeking three Associate Lecturers with a focus on teaching and scholarship (T&S) to maintain and enhance the reputation of the Department in teaching and learning. Three full-time positions are available, but we are happy to consider part-time appointments, for example to take into consideration part-time research funding, or family commitments. Each post will be for an initial period of three years due to current funding availability.

Currently three T&S staff occupy key positions in the Department including the role of Deputy Head of Department (Teaching) with responsibility for the strategic management and implementation of all aspects of teaching and learning and line management of T&S staff. The University has a clear career progression to senior levels for T&S staff and within the Department they are viewed as specialists and a vital part of the academic team.

Those appointed will undertake a range of teaching activities which will include the delivery of lecture courses, including associated preparation and marking of the relevant examination(s); supervision of teaching laboratories; supervision of final year MPhys and/or BSc projects; and leading tutorials. We expect, in due course, the appointees to assume leadership roles within the Department in specific areas associated with supporting and developing teaching activities.
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 undertake effectively a range of administrative responsibilities

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.

Involvement in scholarship and development

- To investigate innovative teaching, learning and assessment methods and techniques in the sector, bringing new insights to the department
- 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 undertake various administrative responsibilities as requested by the Head of Department.

JOB DESCRIPTION

At a glance

<table>
<thead>
<tr>
<th>Salary</th>
<th>£32,236 - £39,609 (reduced pro rata for part time working) / Grade 6</th>
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</thead>
<tbody>
<tr>
<td>Hours of work</td>
<td>Full Time or Part Time</td>
</tr>
<tr>
<td>Contract type</td>
<td>Fixed Term / 3 years</td>
</tr>
<tr>
<td>Based at</td>
<td>Heslington Campus West</td>
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<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
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</thead>
<tbody>
<tr>
<td>Undergraduate degree in Physics or equivalent experience</td>
<td>Essential</td>
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<tr>
<td>PhD in Physics 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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<tr>
<th>Knowledge</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>Detailed knowledge of physics and supporting 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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<tr>
<td>Knowledge of computer programming languages such as Fortran and Python</td>
<td>Desirable</td>
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<tr>
<td>Knowledge of astrophysics and practical astronomy</td>
<td>Desirable</td>
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<table>
<thead>
<tr>
<th>Skills, abilities and competencies</th>
<th>Essential / Desirable</th>
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</thead>
<tbody>
<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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<tr>
<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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<tr>
<td>Ability to supervise the work of students, provide advice on study skills and assist with their approach to problem solving</td>
<td>Essential</td>
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<tr>
<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 plan, manage, organise and assess own teaching contributions</td>
<td>Essential</td>
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<tr>
<td>Ability to contribute to experimental or computational laboratory teaching</td>
<td>Essential</td>
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<tr>
<td>Ability to contribute effectively to the delivery and development of undergraduate astrophysics projects and teaching</td>
<td>Desirable</td>
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<table>
<thead>
<tr>
<th>Experience</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>Experience in teaching and learning at undergraduate level such as in role of a graduate teaching assistant</td>
<td>Essential</td>
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<tr>
<td>Experience of using different delivery techniques to enthuse and engage students</td>
<td>Essential</td>
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<tr>
<td>Evidence of successful planning and designing teaching material</td>
<td>Essential</td>
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<tr>
<td>Experience of teaching astrophysics/astronomy at university level</td>
<td>Desirable</td>
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<tr>
<td>Management and administration within a teaching environment</td>
<td>Desirable</td>
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<td>Pastoral care within a teaching environment</td>
<td>Desirable</td>
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### Personal attributes

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<tbody>
<tr>
<td>Enthusiasm for teaching</td>
<td>Essential</td>
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<tr>
<td>Attention to detail and commitment to high quality</td>
<td>Essential</td>
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<tr>
<td>Creativity, initiative and judgement in applying appropriate approaches to teaching and learning</td>
<td>Essential</td>
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<tr>
<td>Positive attitude to colleagues and students</td>
<td>Essential</td>
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<tr>
<td>Ability to plan and prioritise own work in order to meet deadlines and work independently</td>
<td>Essential</td>
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<tr>
<td>Strong organisational skills</td>
<td>Essential</td>
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<tr>
<td>Good time management and ability to work to tight deadlines</td>
<td>Essential</td>
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<tr>
<td>Commitment to personal development and updating of knowledge and skills</td>
<td>Essential</td>
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<tr>
<td>Ability to accept a high degree of responsibility</td>
<td>Essential</td>
</tr>
</tbody>
</table>
The Department of Physics: [http://www.york.ac.uk/physics](http://www.york.ac.uk/physics) is a department at the forefront of pioneering global research and technological advancement in our world leading research centres, focused around biophysics, condensed matter physics, nuclear physics, and plasma physics and fusion energy at the York Plasma Institute.

The Department has a lively and expanding research programme, and the research interests span a wide range, within both physics and the interactions of physics with other disciplines. We have benefited from substantial investment in these research groups, to help them play a leading role on the national and international stage, collaborating with major research institutions and industries. The research groups have international recognition, and each group regularly publishes papers in major journals and presents papers at international conferences.

The Department has many collaborations with other research groups in the UK and abroad, and contacts with industrial researchers. The Department also leads several inter-departmental ventures, including the Biological Physical Sciences Institute (BPSI), the York Quantum Technologies Centre (YQTC) and the EPSRC Quantum Communications Hub. There has been significant major investment in laboratories and facilities including the York-JEOL Nanocentre and the York Plasma Institute, and we have excellent mechanical, computing and electronic workshop facilities, which support our research and teaching activities.

We have developed a range of undergraduate and postgraduate programmes that provide all our students with the skills to succeed in careers across a broad range of scientific, technological, and related disciplines, and provide opportunities for students to spend a year at one of a number of overseas universities or in industry as an integral part of their degree programme. 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. For postgraduates it offers a taught MSc in Fusion Energy, an MSc by Research and PhD degrees, including through the Centre for Doctoral Training in the Science and Technology of Fusion Energy.

The Department has 58 academic staff members (including three specialist teaching and scholarship staff) and amongst our academic staff we have Fellows of the Royal Society and the Institute of Physics, many national and international prize winners, contributing to a dynamic and thriving department. We have over 40 research staff, an increasing number of visiting researchers, and 40 support staff (technical and administrative). The student population comprises around 500 undergraduates and 120 postgraduates (mostly PhD).

The Department of Physics operates a set of family-friendly
THE DEPARTMENT

policies and welcomes applications that are made on a part-time and job share basis, and we will do our best to accommodate such requests where possible. Staff working patterns are flexible and we provide 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 provides support for all categories of staff in their applications for promotion, role reviews, awards, prizes and rewarding excellence nominations. Staff are encouraged to attend training events and take up opportunities for professional development including those offered by the award-winning University Learning and Development Team: https://www.york.ac.uk/admin/hr/browse/learning-and-development. The Department is committed to establishing a culture of environmental good practice and all staff are asked to go about their duties in a resource efficient way and minimise impacts to the environment wherever possible.

The Department strives to address diversity inequalities to ensure that there is a culture that supports equality and encourages better representation throughout the Department. The Department of Physics fully endorses and adheres to the University’s policies on equality of opportunity, and support for staff at all stages of their career is recognised as being extremely important. In recognition of our commitment to equality the Department has been awarded both Athena Swan Silver (the Athena SWAN Charter recognises and celebrates the advancement of gender equality) 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 gender equality in physics). We have a well-established Equality Committee in the Department which regularly reviews working practices and policies.

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

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2019 it is the home of more than 18,000 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 one of just six post-war universities to have appeared in the world top 100. We were rated 22nd in the 2019 Times & Sunday Times league table. 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 multiple 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](http://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 7798
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 30 July 2019.

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 Dr Phil Lightfoot (Deputy Head of Department (teaching)) at phil.lightfoot@york.ac.uk, 01904 324868

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

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