

**Darlithyddiaeth Ffiseg Deunyddiau
Yr Adran Ffiseg
Athrofa Mathemateg, Ffiseg a Chyfrifiadureg
Graddfa 7: £31,331 - £36,298 y flwyddyn**

Mae'r Adran Ffiseg yn dymuno penodi darlithydd â photensial eithriadol i gyfrannu at raglenni ymchwil a dysgu'r adran. Disgwylir i'r ymgeisydd llwyddiannus ddatblygu gweithgarwch ymchwil annibynnol ym maes ffiseg mater cyddwysedig arbrolfol. Disgwylir i'r ymgeisydd llwyddiannus chwarae rhan amlwg yng ngwaith dysgu'r adran, gan gynnwys datblygu'r cyrsiau meistr newydd mewn ffiseg.

Dylai fod gan ymgeiswyr radd Ffiseg a gradd PhD a phrofiad ôl-ddoethurol ym maes ffiseg mater cyddwysedig arbrolfol.

Gellir ymholi'n ffurfiol trwy gysylltu â'r Athro Andrew Evans (e-bost: a.evans@aber.ac.uk neu ffôn: (01970) 622802).

**Cyf: IMPACS.14.19
Dyddiad Cau: 7 Tachwedd 2014**

Am fwy o wybodaeth ac am ffurflen gais ewch i <http://www.aber.ac.uk/cy/hr/jobs/vacancies-external/>

Dylid llofnodi'r ffurflen gais ar ôl ei llenwi ac yna ei dychwelyd i'r **Tim Recriwtio Adnoddau Dynol** drwy e-bost neu post. Tîm Gweithredol: swyddi@aber.ac.uk / Ffôn: 01970 628555

NODYN: Nodwch gyfeirnod y swydd ar flaen yr amlen ac ar y ffurflen gais os gwelwch yn dda.

Sefydliad Dwyieithog sy'n gweithredu Cynllun Iaith Gymraeg ac yn ymroddedig i Gyfle Cyfartal.

FEL ARFER FE BENODIR I SWYDDI O FEWN 4-8 WYTHNOS WEDI'R DYDDIAD CAU. GALL YMGEISWYR NA FYDDANT WEDI DERBYN LLYTHYR ODDI WRTH Y BRIFYSGOL ERBYN Y DYDDIAD HWNNW RAGDYBIO NAD YW EU CEISIADAU YN CAEL EU HYSTYRIED YMHELLACH AC NA FYDDANT YN DERBYN GOHEBIAETH BELLACH.

**Lectureship in Materials Physics
Department of Physics
Institute of Mathematics, Physics and Computer Science
Grade 7: £34,233 - £37,384 per annum**

The Department of Physics is seeking to appoint a lecturer with outstanding potential to contribute to the department's programmes of research and teaching. The successful candidate will be expected to develop independent research activity in experimental condensed matter physics. The successful candidate will be expected to play a strong role in the department's teaching, including the development of new masters-level courses in physics.

Applicants should hold a Physics degree and a PhD and have postdoctoral experience in experimental condensed matter physics.

Informal enquiries may be addressed to Professor Andrew Evans (e-mail: a.evans@aber.ac.uk or Tel: (01970) 622802).

**Ref: IMPACS.14.19
Closing Date: 7 November 2014**

For information and application forms please go to www.aber.ac.uk/en/hr/jobs/vacancies-external/

Completed Application Forms should be signed and returned to the **Human Resources Recruitment Team** by e-mail, or post. Email address: vacancies@aber.ac.uk / Tel: 01970 628555

NOTE: Please put the post reference on the front of your envelope and on your application form.

We are a Bilingual Institution which operates a Welsh Language scheme and is committed to Equal Opportunities.

APPOINTMENTS ARE NORMALLY MADE WITHIN 4-8 WEEKS OF THE CLOSING DATE. IF WE HAVE NOT BEEN IN TOUCH WITHIN THIS TIMESCALE YOU MAY ASSUME THAT YOUR APPLICATION IS NOT BEING FURTHER CONSIDERED AND NO OTHER COMMUNICATION WILL BE SENT.

Further Particulars (Yn Saesneg yn unig)

Aberystwyth University has an opening for a Lectureship in Materials Physics. It is expected that the successful candidate will play a leading role in the department's teaching programme and participate in the research activities of the Materials Physics research group.

JOB DESCRIPTION

- Carry out undergraduate and postgraduate teaching and examination in Physics, contribute to the development of new modules and offer support and guidance to students
- Undertake administrative tasks when requested to do so by the Head of Department
- Undertake research of international quality.

PERSON SPECIFICATION

Applicants will be assessed against the following criteria, covering research, teaching and administration. The successful candidate must meet the indicated essential criteria, and preference may be given to a candidate who additionally meets one or more of the desirable criteria. All criteria will contribute to the final decision of the interviewing panel.

Essential Criteria	Desirable Criteria
<i>Educational and Professional Training and Qualifications</i> <ul style="list-style-type: none"> • PhD in Physics or closely-related discipline. 	
<i>Previous Experience/ relevant to the job</i> <ul style="list-style-type: none"> • Alignment with materials physics research at Aberystwyth. • A high-quality and relevant publication record in experimental condensed matter physics. • Teaching experience at degree level. • Have a commitment to teaching excellence. 	<ul style="list-style-type: none"> • Expertise in one or more of the following areas: low dimensional materials, optoelectronic materials, wide-gap materials, materials characterisation using x-ray, electron or optical methods.
<i>Knowledge</i> <ul style="list-style-type: none"> • A knowledge of external funding opportunities. 	

<p><i>Skills</i></p> <ul style="list-style-type: none"> • Have a proven ability to communicate effectively with target audiences at differing levels • An awareness of the bilingual nature of the University - <i>Standard/Safon A*</i>. 	<ul style="list-style-type: none"> • A proven ability to work collaboratively within a team. • Willingness to learn Welsh to Standard B**.
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* *Explanation of Standard A (Level 0/0)*

- *The ability to understand the bilingual nature of the University and an awareness of the procedures in place to support working bilingually.*

** *Explanation of Standard B (Level 2/0)*

- *The ability to **understand** simple instructions or simple telephone messages.*
- *The ability to **understand** people conversing on familiar subjects.*
- *The ability to **hold a conversation** on familiar subjects, e.g. the weather, work, family.*
- *The ability to **transfer** simple instructions or convey simple messages from telephone calls.*

For more information about the Teaching and Research academic role profile, please go to the following links:

Grade 7: <http://www.aber.ac.uk/en/media/departmental/humanresources/hera/TR2.pdf>

BACKGROUND TO THE DEPARTMENT OF PHYSICS

Founded in 1872, Aberystwyth accommodates some 10,000 students on a modern campus overlooking the town and the sea. Mid-Wales is an area of outstanding natural beauty. With the reputation of being the cultural capital of Wales, Aberystwyth is well-served by the university Arts Centre and by the copyright National Library of Wales. There are a variety of excellent schools and the quality of life is high. The Department of Physics is aligned alongside the Departments of Mathematics and Computer Science within the Institute of Mathematics, Physics and Computer Science, established in 2013.

The Department occupies an award-winning, well-equipped building. It has all the facilities of an active teaching and research department, including mechanical and electronic workshops and a well-supported computing infrastructure with efficient connections into the national network. There are in-house research laboratories in Materials, Optics and Rheology, and the Department has its own Computer Modelling Centre with HPC engines and graphics facilities, including VR equipment. An extensive library of physics, mathematics and research journals is based within the building.

TEACHING

The department offers BSc and MPhys courses in Physics, Mathematical and Theoretical Physics, Physics with Planetary and Space Physics, Astrophysics and Space Science and Robotics. In addition, courses with other departments include Physics with Business and Management, Physics with Education, Mathematics and Physics, Computer Science and Physics and Physics with a European Language. The department offers MSc courses in Remote Sensing in collaboration with the Department of Computer Science, Department of Geography and Earth Sciences and the Institute of Biological, Environmental and Rural Sciences.

RESEARCH

The Department has three main areas of research activity: Solar System Physics, Materials Physics and Quantum Control. This activity attracts financial support from UK Research Councils, the European Community, UK government departments and industrial sources. For further information see www.aber.ac.uk/en/imaps/research/.

Materials Physics

Materials research investigates the relationship between the microscopic structure of materials and their macroscopic properties, with a particular focus on low dimensional and quantum materials, optical/optoelectronic materials, wide-gap materials, extreme materials and geo/space materials. Experimental facilities include fabrication of thin films and interfaces, photoelectron spectroscopy, Raman spectroscopy and imaging, luminescence spectroscopy and imaging, ellipsometry, UV-vis spectroscopy, scanned probe microscopy and x-ray diffraction. Computational modelling is implemented using 3-D visualization and HPC. Experimental studies include the use of central synchrotron radiation and neutron facilities and involvement in space missions. Facilities include a well-equipped materials processing and characterization laboratory that includes bespoke microscopy and spectroscopy, supported by mechanical and electronic workshops. The group is a partner in the EPSRC Centre for Doctoral Training in Diamond Science and Technology.

Solar System Physics

Energy and matter emerge from the Sun and flow through our heliosphere, interacting with planetary atmospheres and surfaces, powering many of the processes which shape our world and define the planetary environment we live in. The group studies this single system from the development of eruptive features on the Sun, through the evolution and structure of material in the solar wind, and the impact of this flow on the environments of the Earth and other planets. This science exploitation goes hand in hand with a programme of solar system exploration, and the group also researches the robotics and photonics technology for future missions that will dramatically improve their science return.

Quantum Structures Information and Control

Research covers quantum systems in interaction with their environment, and in particular the emergent field of quantum control engineering. This is a highly interdisciplinary field incorporating ideas from information theory, (non-commutative) stochastic analysis, mathematical physics for open quantum systems, and modern control theory. The group has an expertise in functional analysis and operator theory which it applies to practical quantum models.

This job description is subject to review and amendment in the light of the changing needs of the University, to provide appropriate development opportunities and/or the addition of any other reasonable duties.