

BMS Operations Supervisor

Estates Division

Closing Date: 6th May 2024

Job Reference: BA39740















BMS Operations Supervisor

Salary:

£33,966 - £44,263 per annum

Staff Group:

Assistant

Contract:

Permanent

Location:

Cambridge

Faculty / Department:

Estates Division

Working Pattern:

Full time



Role overview

The Building Management Systems (BMS) team delivers building automation, comprising of HVAC control systems and Critical alarms systems. This covers system improvements, planned maintenance, and response repairs for all Electrical, HVAC, wet systems and steam across the University's Operational Estate.

The role holder is a key figure in the development of the University's Building Management Systems onto a central IP platform to enable more efficient collection and dissemination of Building Services and, in some cases Energy data to stake holders across the department and indeed, where necessary, the University.

The BMS Operations Supervisor acts as a source of expertise in the operation, maintenance and fault finding of numerous complex Building Management System and provides support for their team in their area of expertise. The BMS Controls Supervisor also provides technical support to the electrical and mechanical teams, building surveying team and minor works / capital projects team on BMS related matters.

The BMS Team sits within the University's Estates Division under Asset Management and is operated through a collaborative arrangement with an external maintenance provider under a Retention of Employment (RoE) model. The team is responsible for supporting the maintenance and operation of the University's operational estate.

The Operational Estate comprising some 370 teaching, academic and research buildings with a total footprint of 723,000 square metres and an insurance value in excess of £3.4bn. The annual estates maintenance and minor works spend is in excess of £25m. The BMS Operations Supervisor will provide operational and technical leadership for the Mechanical services delivered by the Maintenance Team.

Purpose of Role

To control, monitor, maintain and upgrade the operation of the University's building management system assets.

Key goals within the role and the wider BMS team are as follows

- Ensure stakeholders environmental conditions are being controlled in a reasonable and proper manner. In the case of close controlled or designated environments supporting specific scientific research, ensure environmental conditions and the appropriate monitoring systems are functioning within the set parameters, or home office regulations.
- Maintain where possible and within energy team guidance, a healthy and comfortable indoor climatic conditions for UoC building users.
- Wherever possible ensure the BMS configured and associated plant is controlled to maximise energy savings.
- Ensure BMS assets are maintained and new installations meet standards laid out within UoC design guide.

To be responsible for the operation of the University's Building Management Systems (BMS) and to personally carry out BMS designs and/or provide supporting advice to others in respect of upgrade and/or new building works. To plan and monitor the development and any required additions, replacements and upgrades to the main system and any associated sub-systems.

Direct teams comprising MU technicians, plant operators and contracted personnel on plant BMS and control projects on all matters relating to the planning, implementation and commissioning of plant and plant operations. This could include emergency breakdowns, major repairs/upgrades, or preventative maintenance overhauls. On all site matters, (planning, progress, implementation and commissioning) liaise with departmental/building staff keeping line manager advised on a daily basis.

To carry out site surveys providing information for forward planning, costing and feasibility purposes and health and safety plans, risk assessments, method statements etc. To liaise with contractors personnel on site on all aspects of planning and plant operations work being dealt with by himself/herself taking site decisions on behalf of the Maintenance Unit.

In the absence of their line manager, deputise on all matters relating to the planning, implementation and commissioning of BMS controls and any associated networking issues.

Key Responsibilities

Project Procurement

- Define scope of project as per design guide.
- Sets up design teams, carry out surveys, and prepare feasibility study and final design including specifications and drawings.
- Liaise with external bodies including, Safety Adviser/Security Adviser, structural engineers, CDM consultants (both EM and external), specialist contractors and regulatory bodies.
- Prepare tender estimates, cost plan, cash flow and general progress charts.
- Prepare tender documents.
- Prepare final accounts.
- Supervise contractors & external consultants with on-site commissioning.
- Evaluate quality of project and documentation.

Operations relating to BMS maintenance, breakdowns remedial work and new installations

- Personally witness and authenticate when necessary the completion of operational tests and statutory inspections.
- Ensure that each task is accurately evaluated in respect to labour and material used and that adequate supporting documentation is provided for accounts and record purposes.
- Arrange for the purchase of all materials required and ensure that their procurement.
- Issue written orders and/or verbal instructions to contractors, and/or own maintenance staff.
- Prepare all outgoing orders for such work and confirm when each job has been completed satisfactorily before final payment is made.
- Set up, supervise, oversee and administer contracts in accordance with written technical instructions (drawings, etc.) or verbal instructions.
- Liaise with departmental/building personnel in respect to the nature of the service being carried out and the effects of this work on departmental operations.
- Check and sign off completed jobs.
- Keep departmental/building staff appraised of job progress. Report to building representative should circumstances adversely affect job progress and report when satisfactorily completed. Report to departmental/building staff on completion of each job, particularly in respect to follow up observations/action that may be necessary.
- Maintain appropriate up-to-date BMS asset records on shared resources.

Maintenance Tasks

Preventative Maintenance:

 Assist with the supervision and administration of PPM's for the routine maintenance of such systems and plant in accordance with pre-set work instructions. Check that the servicing of the plant/system is in accordance with MU/manufacturer's instructions. Take note of any abnormalities or defects. Record service details within the maintenance management system.

Breakdown Maintenance:

- Take a leading role in organising and supervising a suitable response to breakdowns or unplanned outages related to building services control systems. Work requests are made through the helpdesk and the role holder must ensure that details are recorded and returned to the helpdesk for completion, indicating where resources are used. Prioritise remedial works by personal judgement, site inspection, liaison meetings etc., and where appropriate carry out technical investigative work and/or design work required.
- When necessary the role holder is expected to call upon the assistance of Maintenance Superintendents (for the use of the MUs maintenance team in other disciplines or trades) or specialist contractors. In such events, the role holder is required to lead and supervise the team to completion. In the event of a contractor being called in, the role holder will be responsible for the technical specification of the work involved, cost control, progress and witness of final operational testing and certification of the contractor's works. Records any new equipment on the asset register within the maintenance management system.

Installation Work:

- Supervise the work of directly employed labour engaged on installation work.
- Assess installation requirements on site determining materials, other trade skills required builders work and anticipated time schedule.
- Where appropriate arrange the procurement of materials through MU stores.
- Check all relevant documentation particularly manufacturer's instructions in respect to the installation element of services plant involved.
- Keep departmental/building representative aware of job progress at all times.
- Report to departmental staff when job has been satisfactorily completed. Be present to supervise or witness commissioning works required to put installation into correct/safe working operation.
- For administrative purposes maintain appropriate records and ensure that the completed job sheets include a brief outline report of work done, follow up action required, materials used and time spent on job.

Record any new equipment on the asset register within the maintenance management system

Energy Saving and implementation of the universities heating policy.

- Maintain on a daily basis heating levels and other environmental conditions across the estate from the BMS Control Room located at Laundry Farm.
- Be advised, on a day to day basis, from personal monitoring of the BMS systems and/or his/her staff and/or departments of actual and perceived faults in the operation of heating and ventilation plant. Take required remedial action.
- Use BMS technology to diagnose reason for fault and where possible modify the software to overcome the problems (perhaps temporarily) to provide relief to departmental users.
- Liaise as necessary with all parties involved. Convene whatever meetings are appropriate to ensure that all practical/technical aspects of remedial works are taken into account.

- Continual logging and monitoring of building temperatures and operating times carry out BMS adjustments in order that the consumption of heating fuels and electricity may be conserved.
- Selective changes to space conditions (temperature and humidity)
- Selective changes to time programmes
- Redesign of control strategy by software alterations
- Provision of meter readings (gas, water and electricity) via BMS networks.
- Keep up-to-date with latest energy saving technologies.
- Implementing energy saving software and hardware modifications.

Technical assistance and expertise

Have an in depth working and design knowledge of the BMS systems approved for use in University buildings. These currently are:

- 1. TREND IQQ/IQ4- IQ Vision
- 2. Honeywell 5000 (soon to be replaced)
- Be knowledgeable of all other 'stand-alone' control systems in use across the University Estate.
- Personally design, specify, install and commission BMS systems and their software for upgrade works and small new buildings.
- Keep an updated technical library of all BMS and 'stand-alone' environmental control systems and component parts thereof, and provide technical advice to other Estate Management employees on request.
- Provide technical advice to external contractors and consultants to ensure that new installations are designed in accordance with the University's standards and requirements and therefore compatible with existing installations.
- As part of this exercise he/she is expected to witness, on behalf of the University the commissioning of all new installations and to ensure that any shortcomings are reported/corrected.
- Introduce monitoring aids within BMS systems by software design such as alarm logs to
 ensure that remote monitoring of the operation of the University's H&V systems can be
 easily carried out by his/her staff and others being less familiar with the intricacies of BMS
 systems than him/herself.
- Provide support and advice to produce improvements and updates to the electrical sections of the Design Guide and Consultants Brief for University Construction Works.

Other

- Provide cover for and assistance to other members of the maintenance team and perform any other duties which are commensurate with the grade as requested by the Management.
- Support the management team in the management and development of the maintenance team
- Other matters as instructed by the UoC Maintenance DLO Manager and/or the external Performance Manager
- Support wider Estates Division initiatives and work as requested by Senior Management

Person Specification

Criteria	Essential	Desirable
Education		
NVQ, City & Guilds or ONC Electrical or HVAC qualification.	✓	
Other engineering qualification.	✓	
Industry standard training qualifications such as TREND SET tool and/or BCIA.	✓	
Experience		
Good communication and written skills and an ability to discuss technical requirements with designers, consultants, science based technicians and departmental contacts.	✓	
Good practical experience of IT networking and BMS supervisor workstations, including graphics would make you the ideal candidate	✓	
The role-holder shall be conversant with Health and Safety Regulations.	✓	
In depth knowledge and experience working with TREND BMS infrastructure.	✓	
Real world HVAC plant room based knowledge. Understanding of HVAC cause and effect.	✓	
A successful record of supervising maintenance trades personnel over a continuous period of at least 5 years.		√
Knowledge and skills in regulations and legislation needed to comply with health, safety, environmental and quality standards.		✓
Understanding of open protocol communication networks such as BACNet, MODBus, TREND LAN, KNX etc.		✓
Skills		
Good communication and written skills and an ability to discuss technical requirements with designers, consultants, science based technicians and departmental contacts.	✓	
Ability to work within a team, plan and manage work activities, communicate and prioritise workloads.	✓	
Ability to manage complex projects under time challenging conditions.	✓	

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Effective decision making & problem resolution skills.	✓	
Self-motivated to continually develop self and others	✓	
Proficient in MS Office suite.	✓	
Additional Requirements		
Good interpersonal skills and ability to communicate with operational staff, senior managers, academic staff, external agencies and central support services at all levels.	~	
A strong team player who uses initiative but with a consultative approach	✓	
Strong customer focus.	✓	
Commitment to excellence in service delivery.	✓	
Strong advocate of Health and Safety	✓	

Behavioural Attributes

This section summarises the behavioural attributes (or competencies) that we expect the role holder to be able to demonstrate, at what level and whether this is an essential or desirable requirement.

Full definitions are at: https://www.hr.admin.cam.ac.uk/policies-procedures/behavioural-attributes

Please review these and provide specific examples in your application of how you have demonstrated these attributes in your work, education or other experience. It will assist your application if you explain the situation, what you did and what the outcomes were.

Attribute	Level
Valuing Diversity	А
Achieving Results	В
Communication	С
Innovation and Change	С
Negotiating and Influencing	С
People Development	С
Relationship Building	В
Strategic Focus	С

Estates Division

The Estates Division at the University of Cambridge is a multi-disciplinary organisation responsible for the development, management and maintenance of the University estate, along with the provision of a variety of related services.

Our current operational estate (buildings used for teaching, research and administrative activities) is currently valued at £3 billion (Insurance Replacement Cost) and its broad and complex nature presents many demanding challenges, for example some buildings are 800 years old, Grade I Listed and protected by English Heritage, whilst others are new with highly sustainable building fabrics and buildings management systems.

Key areas we are responsible for include:

- o Planning and managing the University's estate development programme.
- o Project managing new build construction and the refurbishment/alteration of existing stock.
- Managing and maintaining the estate including residential accommodation and investment properties.
- Delivering a comprehensive facilities management service to the University.
- Managing catering outlets across the estate.
- Managing the operational and research facilities at the <u>University Farm</u>.
- Promoting the University's environmental sustainability initiative, particularly with regard to reducing carbon emissions.





Terms of Appointment

Tenure and probation

The appointment will be made on a permanent basis. The appointment will be subject to satisfactory completion of a six month probationary period.

Hours of Work and Working Pattern

The hours of work are 36.5 hours per week, working Monday – Friday.

Pension

You will automatically be enrolled to become a member of CPS (Contributory Pension Scheme) – a defined benefit and defined contribution pension scheme. For further information please visit: www.pensions.admin.cam.ac.uk /.

Annual leave

Full time employees are entitled to annual paid leave of 36 days inclusive of public holidays. For part-time employees, annual leave will be pro rata'd based on days worked.

Paid holiday entitlement will increase by one day after nine years' unbroken service and thereafter by one additional day for each period of three years' unbroken service up to a maximum of four additional days after eighteen years' service.

Your normal hours of work are 36.5 hours. Your times of work will be notified to you by your institution. In addition to the standard working week of 36.5 you will work 0.5 hours. As a result of working this extra time, in addition to the 36 days holiday entitlement, you will

receive time off in lieu with payment equivalent to a further 3 working days in a full leave year.

General information

Pre-employment checks

Right to work in the UK

We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it.

Health declaration

Once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

Qualifications

The person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

References

Offers of appointment will be subject to the receipt of satisfactory references.

Screening Checks:

This role requires a basic disclosure/a security check. Any offer of employment we make to you will be conditional upon the satisfactory completion of this/these check(s); whether an outcome

is satisfactory will be determined by the University.

Information if you have a disability

The University welcomes applications from individuals with disabilities. We are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at http:// www.admin.cam.ac.uk/offices/h r/staff/ disabled/

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please email Estates Division HR on EDR@admin.cam.ac.uk

The University

The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.

Our sustained pursuit of academic excellence is built on a long history of first-class teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people.

Our capital investment projects include the West Cambridge site, the North West Cambridge development and the growth of the Biomedical Campus in the south of the city. The North West Cambridge development includes the opening of a primary school – the first in the UK to be managed by a University. So we are deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:





About Us

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit students, provide student accommodation and deliver small group teaching.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching and conducting research.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

"Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts."

Stephen Toope, Vice Chancellor 2019

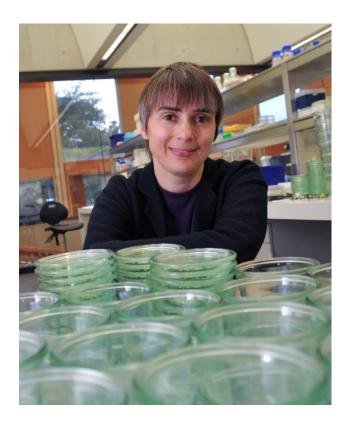
Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 18,000 students and over 16,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

We offer a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a new science and technology campus to the west of the city centre, and is now expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.



Equality & diversity

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity networks for women, black and minority ethnic and lesbian, gay, bisexual and transgender staff. More details are available here: http://www.equality.admin.cam.ac.uk/

The University has a bronze Race Equality Charter aware, with framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's Athena SWAN award recognises and celebrates good practice in recruiting, retaining and promoting women.

Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances At the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45 minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit https://www.accommodation.cam.ac.uk/. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit https://www.accommodation.cam.ac.uk/

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What Cambridge can offer

We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a career break scheme for academic and academic-related staff, with additional flexible working policies for all other staff.



Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings. Payroll giving is also a simple, tax-efficient way for employees to make monthly donations to charity.



CAMbens employee benefits

We offer a CAMbens scheme for University employees, providing access to online and instore shopping discounts and cashback. With more than 2,000 participating retailers, employees can save money on a wide range of household expenses, from groceries and clothes, to holidays and insurance and much more. A range of local discounts are also available, helping employees to save money whilst also supporting local Cambridge businesses and a CAMbens Cycle to Work salary sacrifice scheme is also available, which enables employees to save money on transport costs. A 10% discount rate on the purchase of train season tickets, bulk buy tickets and an interest free travel to work loan are also available for staff of the University.

What Cambridge can offer

Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 18 weeks full pay and emergency family care support via My Family Care.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

https://www.childcare.admin.cam.ac.uk/

The Newcomers and Visiting Scholars Group is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Office of Postdoctoral Affairs supports the postdoctoral community within Cambridge. Further details are available here: https://www.opda.cam.ac.uk/



Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. There are many societies in Cambridge catering for almost every taste and interest. Whether you want to take part in a sport, participate in music or drama, pursue a hobby, or join a political group, you will almost certainly find that a society exists for this purpose. The University also hosts the Cambridge Science Festival and Cambridge Festival of Ideas, as well as Open Cambridge weekend, which together attract over 50,000 visitors per year. The festivals are a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

Development opportunities

We support new employees to settle in through various activities. The encouragement of career development for all staff is one of the University's values and we put this into practice through various services and initiatives. Our Personal and Professional **Development Department provides** development opportunities and courses for all University employees. These include face-toface sessions, online learning modules and webinars. Employees may also apply for financial support to undertake training that will lead to a qualification. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. The CareerStart@Cam programme also supports employees in assistant staff roles who do not hold higher education qualifications to develop their skills, experience and qualifications.

