



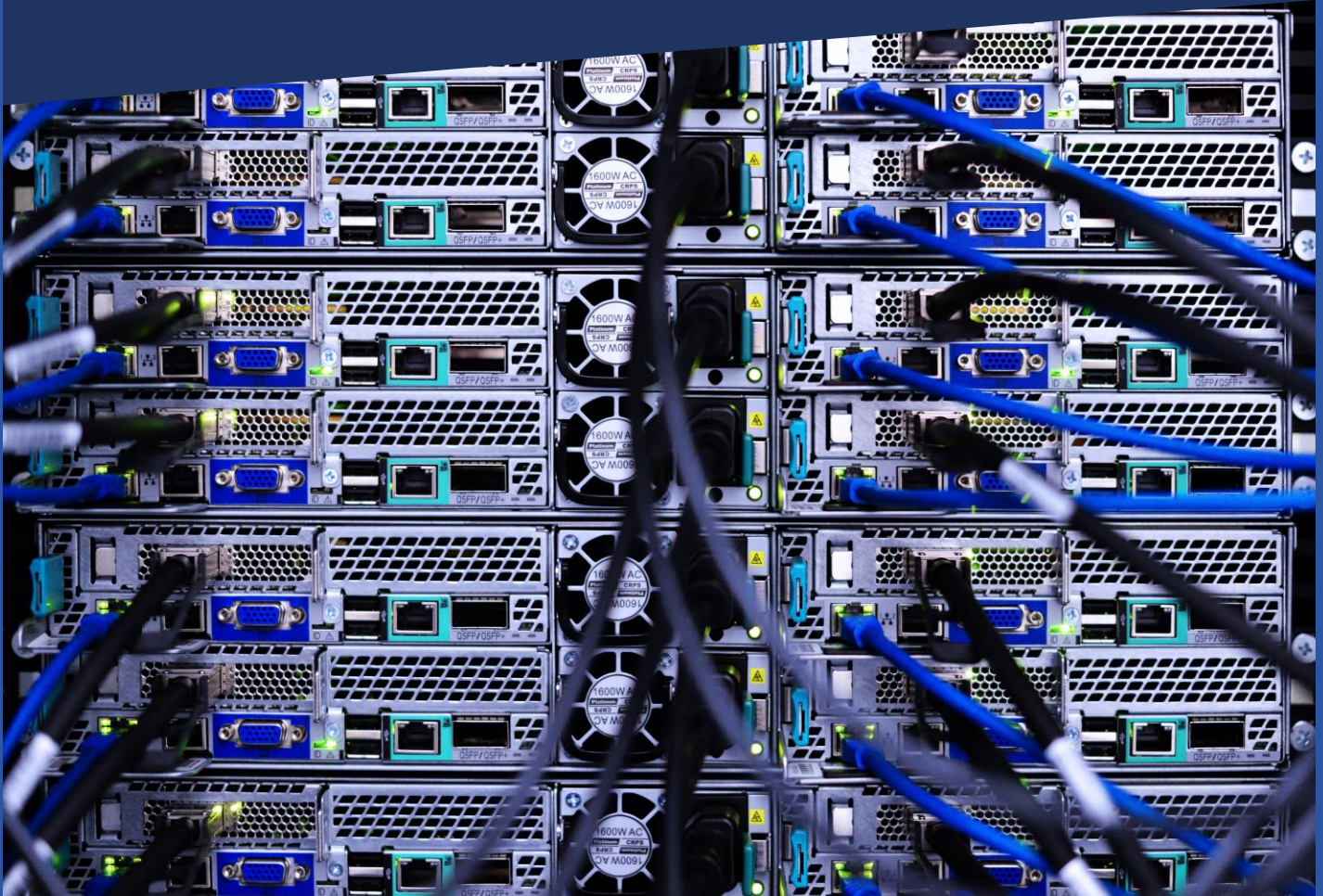
UNIVERSITY
OF HULL

CENTRE OF EXCELLENCE FOR
DATA SCIENCE AI AND MODELLING

Appointment of Teaching Fellow Band 8



Appointment Details - March 2023



Executive summary

The University of Hull is seeking to appoint to the role of Teaching Fellow within the Centre of Excellence for Data Science, Artificial Intelligence and Modelling. This candidate pack sets out the role description and person specification. It also provides background information regarding the University of Hull and the local area.

Discover the real **Hull**

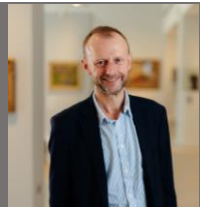


Click to discover the real **HULL**

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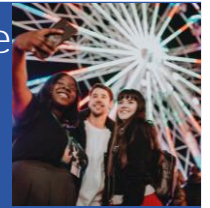
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Message from the Vice-Chancellor

The University of Hull is on a journey, one that is led by our commitment to delivering excellent research and a fantastic experience.

I am honoured to have taken up the position of Vice-Chancellor at the University of Hull. I was looking for a university where I could make a difference and I truly believe the University of Hull provides that opportunity.

Our University strategy focuses on two of the most important challenges of our generation: environmental sustainability and social justice. These resonate strongly with me and my own academic research interests. I'm looking forward, along with colleagues, students and the wider community, to make a positive difference and help move this agenda forward in a bold and progressive way. High on the agenda is ensuring the student experience and education is world-leading. Hull is an inclusive, welcoming and safe university that provides a great place to study.



Professor Dave Petley
Vice-Chancellor

The Vice-Chancellor, Professor Dave Petley

Prior to his appointment at Hull, Professor Petley was Vice President for Innovation at the University of Sheffield, a role which saw him establish innovation as a key strategic focus for the institution. He began his academic career in roles at the universities of Sunderland and Portsmouth before moving to the University of Durham in 2000. His research focuses on natural and environmental hazards, and he was appointed the inaugural Wilson Professor of Hazard and Risk at Durham in 2006.

He is widely recognised as a world leader in the study and management of landslides and, alongside advising on national and international organisations on the management of slopes, has for over a decade maintained a popular blog on landslides which receives over 500,000 individual visits per year.

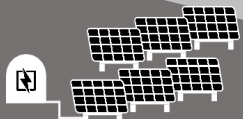
While at Durham, Professor Petley held leadership roles including Executive Director of the Institute of Hazard, Risk and Resilience, Dean of Research and Dean of Global Engagement.

In 2014, he joined the University of East Anglia as Pro-Vice-Chancellor for Research and Enterprise before moving in 2016 to become Vice-President for Research and Innovation at the University of Sheffield, where he led the development of a new research strategy, the formation of four new research institutes and a transformation of the University's approach to commercialisation.

Introducing our Vice-Chancellor



Click to discover a message shared from the Vice-Chancellor



The University of Hull - A Place to Shine

We are ambitious about the future: ours, our staff, our students, our alumni and the world around us. Our research and teaching are designed to inspire thinking and expand horizons. As one of England's oldest universities, our motto Lampada Ferens - carrying the light of learning - remains as relevant as ever as we continue to empower people to shape the future.

Meet our Talented Colleagues



Join a university where everyone matters, everyone can grow, and everyone can make a difference. This is a place to shine.

Why Hull?



Here's a flavour of some of the things we love about working for Hull...



Competitive Salary



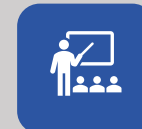
Generous Pension



39 Days Annual Leave



We pay up to £10k in Relocation Expenses



Learning and Development



FREE Legal Advice



Discount at tons of Retailers



Cycle2Work Scheme





Pride



At Hull...

We **EMBRACE** Culture!



Humber Street

Culture at Hull

World-class events, unforgettable experiences

As a producer and supporter of creativity, arts and culture, we seized the opportunity to bring a world-class programme of events to the University and have created unforgettable experiences for our students, staff and the wider community.

Record visitor numbers on campus

In 2017, the University welcomed record visitor numbers and here on campus. Over 60,000 people, including many first-time visitors, enjoyed the impressive range of world-class exhibitions, installations, debates, music and drama, held as part of our cultural programme.

Hosted some of the world's greatest artists

Redeveloped to national standard as part of a £28-million investment in our Brynmor Jones Library, our art gallery hosted some of the world's greatest artists as part of exhibitions with partners such as the British Museum and National Portrait Gallery. 'Lines of Thought - Drawing from Michelangelo to Now', showcased works from prominent masters including Monet, Picasso, Rembrandt and Riley, and the National Portrait Gallery loan exhibition displayed images of stars from JK Rowling to Sir Ian McKellen.

Education for the New Industrial Revolution

An unprecedented revolution of not only scale, but also complexity and speed is revolutionising the way we live our lives.

Behind this revolution is a true fusion of novel technologies that break traditional lines between old disciplines such as artificial intelligence, mathematics and statistics, and physics, and is starting to make the digital world inseparable to the physical one.

Set against the backdrop of the disruption that the Fourth Industrial Revolution is causing, it is clear that the workforce will need upskilling to create new opportunities in the data science, artificial intelligence, and modelling domains.

Our highly successful MSc in Artificial Intelligence and Data Science has grown substantially in popularity with both UK and overseas students.

Through this Masters course, the University of Hull seeks to create a new education paradigm for the Fourth Industrial Revolution and prepare our workforce for the opportunities and challenges that await.



Andrew Parkinson
CEO Lampada Digital Solutions

Official partner in the University of Hull
MSc in Artificial Intelligence and Data Science



Every sector is beginning to recognise how data science can transform their business in some way, shape or form. Whether you are in manufacturing, retail, or construction, there are significant opportunities to deliver efficiencies and improvements to customer experience, and this can be achieved through the application of data science techniques. Data can be regarded as the new oil and is set to become the most valuable resource in the immediate future.

Lampada is seeing a significant increase in enquires from organisations to support them with data science projects. It is clear that every sector will need a greater supply of data scientists and universities will play a crucial role in training and developing the data scientists of the future. We have been working very closely with the University of Hull on the MSc syllabus, and see huge opportunities to unleash this talent into the market”.

Life-Changing Research

Our research underpins the University Strategy 2030 that orients around the themes of social justice and environmental sustainability, and the pillars of people, place, and partnership.

Research conducted at the University of Hull covers the largest length scales possible. Spanning the cosmological scale in the E.A.Milne Centre for Astrophysics to reveal our place in the universe, through to the biological and microscopic in the advancement of wound treatment, our research is not only diverse, but also impactful, as judged by recent Research Excellence Framework returns.

DAIM will enhance this research, not only within the Departments of Computer Science and Technology, and Physics and Mathematics, but encompass the Faculty of Science and Engineering itself, and our sister faculties within the University.



We undertake fundamental research at the interaction of deep machine learning and natural language processing, and work with local and global partners to develop AI-driven solutions to real-world problems towards a sustainable environment and society.

Our recent projects include social media analysis for detecting mental health issues and monitoring floods, using AI to monitor sea water quality, and improving the reliability of wind farms to contribute towards a carbon net zero future.”



Dr Nina Dethlefs

Senior Lecturer in Computer Science and Technology

The Top Rated HPC in the North of England

Within the university sector, VIPER is one of the leading High Performance Computing centres and the highest rated in the North of England.

This is a significant research investment that provides a vital requirement to meet the ever-growing demands of the University's research community, and underpins DAIM's research, education, and external partnership remit.

VIPER is being used in a wide variety of cutting-edge research across the University. This ranges from studying and simulating the galaxy in which we live, the vibrational effects of molecules, semiconductor effects, through to computational linguistics.

Discover VIPER



“

VIPER has truly enabled us to look beyond standard computational approaches and deploy techniques on a scale that we never anticipated before.

The capabilities of VIPER's specialised hardware, for example, allows us to significantly cut model training times and work on huge datasets in unprecedented ways.

This means our research sees shorter lead times from model development to results - in terms of being competitive on a world stage, this is absolutely crucial.”

Dr David Benoit

Senior Lecturer in Computational Astrochemistry

VIPER Technical Specifications

- **Linux OS with approximately 5500 nodes**
- **180 compute nodes, each with 2x 14-core Broadwell E5-2680v4 processors (2.4 -3.3 GHz), 128 GB DDR4 RAM**
- **4 high memory nodes, each with 4x 10-core Haswell E5-4620v3 processors (2.0 GHz), 1TB DDR4 RAM**
- **4 GPU nodes, each identical to compute nodes with the addition of 4x Nvidia Tesla K40m GPUs per node**
- **2 visualisation nodes with 2x Nvidia GTX 980TI**
- **Intel Omni-Path interconnect (100 Gb/s node-switch and switch-switch)**
- **500 TB parallel file system (BeeGFS)**

What we do

Through the launch of the University's new Centre of Excellence for Data Science, Artificial Intelligence, and Modelling (DAIM), we are responding to the increasing need for qualified practitioners by delivering a step-change in the provision of educational excellence - and high-quality research - which cuts across traditional disciplinary departmental and faculty boundaries.

Crucially, through knowledge exchange, DAIM's ambitions encompass the provision of exemplary service within the University, and beyond to the public sector, that will enhance mutual goals and tackle complex industry issues.

DAIM will become a portal for business partnerships and will deliver dynamic inter-disciplinary collaborations and external partnerships leading to research and skills outcomes that are of strategic priority to our region, the UK and the world.

We are delighted to be in a leading position during this latest industrial revolution, and to be able to recruit the future education, research, and business-interfacing leaders of tomorrow. We hope that you feel inspired to come and join us.



An invitation to work with us

“

DAIM is an exciting venture within the University of Hull. Building upon our success with our postgraduate taught MSc in Data Science and AI, DAIM is ready and actively looking to expand.

If you share our values, if you share our outlook on education, research, interdisciplinarity, and business partnerships, I would personally like to extend an invitation for you to apply to work with us in the dynamic environment. Help us to build something brand new and train the next generation for the Fourth Industrial Revolution.”

Dr Kevin Pimbblet

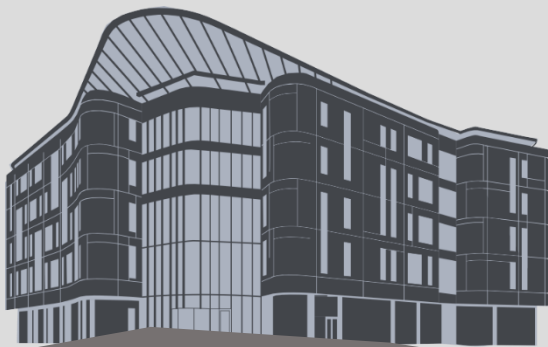
Director of the Centre of Excellence in Data Science, Artificial Intelligence and Modelling (DAIM)



Role Description for Teaching Fellow



Duties, Responsibilities and Accountabilities



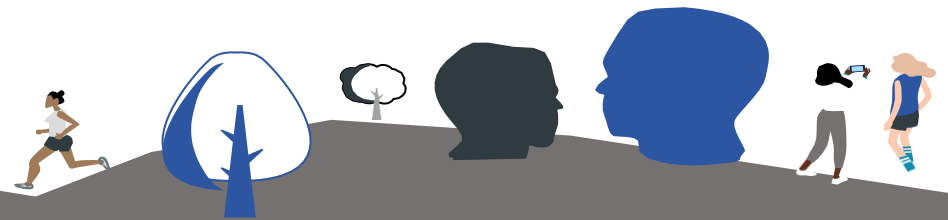
Background and Context

The new interdisciplinary Centre of Excellence for Data Science, Artificial Intelligence, and Modelling (DAIM) has recently been established to support research, teaching & training, and business-facing activity within the University of Hull, and wider region.

The Centre is truly interdisciplinary from both teaching and research perspectives, and brings together academics and researchers from across all University faculties and research institutes with diverse interests in data science and artificial intelligence, as well as statistics, mathematics and programming, to address complex disciplinary and global challenges under a single umbrella.

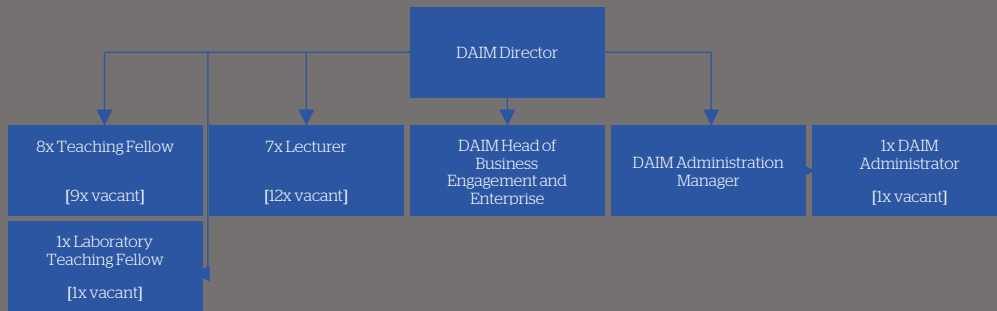
The Centre supports the delivery of a highly successful Artificial Intelligence and Data Science MSc programme in response to the shortage of Data Science and Artificial Intelligence specialists, and a doctoral training programme that has been designed for postgraduate researchers from a range of subject specialisms relevant to the application of data science and artificial intelligence to solve real and complex problems. Candidates will be expected to teach in Python.

The postholder will have excellent communication and personal supervision skills and be able to engage, motivate and support students. They will be expected to make significant contributions to supporting the academic progress of students, to support teaching, and to deliver a positive impact on the student experience. Preference will be given to candidates who are able to provide teaching support across a number of subject areas relevant to DAIM and who complement and enhance the overall disciplinary balance within DAIM.



The Centre of Excellence for Data Science, Artificial Intelligence, and Modelling (DAIM)

Our mission is to deliver a step-change in the provision of educational excellence, high quality research, and knowledge exchange with industry. The centre cuts across traditional disciplinary boundaries, drawing on expertise across the University to be at the forefront of the exciting developments in the field of Artificial Intelligence (AI) and data science.



The Ideal Candidate

We have a fantastic opportunity for talented individuals to join the Centre of Excellence as a Teaching Fellow. We are recruiting 7 x full time Teaching Fellows on a permanent contract and 2 x Teaching Fellows on a three-year fixed term contract.

The ideal candidates will have excellent communication and personal supervision skills and be able to engage, motivate and support students. They will be expected to make significant contributions to supporting the academic progress of students, to support teaching, and to deliver a positive impact on the student experience. Preference will be given to candidates who are able to provide teaching support across a number of subject areas relevant to DAIM and who complement and enhance the overall disciplinary balance within DAIM.

The post holders will primarily be expected to teach into the MSc for Artificial Intelligence and Data Science, and other teaching needs as required. We are looking for a good degree, and a PhD or equivalent, as well as a demonstrable background through teaching, research, or career experience in at least one aspect of: Data Science, Artificial Intelligence, or Python programming.

Specific Duties and Responsibilities

The postholder will primarily be expected to:

- Teach into the MSc for Artificial Intelligence and Data Science, and other courses as required.
- Design and deliver a broad programme of teaching, including identifying current areas for revision and improvement and contributing to the planning, design and development of objectives and materials.
- Create and supervise student projects, including MSc projects and placements as required.
- Identify areas where current provision is in need of revision or improvement and contribute to the planning, design and development of objectives and material.
- Set, mark and assess work and examinations and provide feedback to students. Contribute to the delivery and administration of assessment activities.
- Act as a module leader as required.
- Contribute to support of students in a pastoral role.
- Fully engage with the University's virtual learning environment in addition to working with students in-person.
- Have the ability to communicate complex conceptual ideas to widely divergent audiences.
- Conduct individual and collaborative projects including developing scholarly activity and proposals which will be advancing the state of knowledge in their particular discipline.
- Write individually or contribute to publications and present at conferences or other events as required and disseminate programme outputs using other appropriate media.
- Identify sources of funding and contribute to the process of securing funds.
- Advise and support colleagues with less experience and advise on personal development.

Main Duties

1. Purpose of the Role

This role will be carried out by individuals with experience in teaching usually by progression from the corresponding band 7 role. Direct appointments to this level may be made where it is clear the staff have appropriate experience.

At this level, role holders' contribution spans scholarship, teaching, and related administration, though the weight allocated to each of these strands will vary from role to role and from time to time for individual role holders.

The role holder will:

- Design and deliver a broad programme of teaching, including identifying current areas for revision and improvement and contributing to the planning, design and development of objectives and materials.
- Conduct individual and collaborative projects including developing scholarly activity and proposals which will be advancing the state of knowledge in their particular discipline.
- Write individually or contribute to publications and present at conferences or other events.

Role holders at this level will be expected to be establishing a reputation nationally within their academic specialism.

2. Teaching and Learning

- Design and deliver teaching material across a range of modules or within a subject area using appropriate teaching, learning support and assessment methods.
- Supervise student projects, field trips and, where appropriate placements.
- Identify areas where current provision is in need of revision or improvement.
- Contribute to the planning, design and development of objectives and material.
- Set, mark and assess work and examinations and provide feedback to students.

3. Scholarly Activity

- Develop programme related objectives, projects and proposals.
- Conduct individual or collaborative projects for programme development purposes.
- Identify sources of funding and contribute to the process of securing funds.
- Write or contribute to publications or disseminate programme outputs using other appropriate media.
- Make presentations at conferences or exhibit work at any other appropriate event.

4. Relationship and Teamworking

- Develop and build internal and external contacts which may include:
 - Identifying sources of funding
 - Contributing to student recruitment
 - Securing student placements
 - Marketing the institution
 - Facilitating outreach work
 - Generating income
 - Obtaining consultancy projects
 - Advise and support colleagues with less experience and advise on personal development.
 - May be expected to supervise the work of others, for example, research teams or projects or as PhD supervisor.
 - Act as a responsible team member and develop productive working relationships with other members of the team.
 - Collaborate with colleagues to identify and respond to students' needs.
 - Act as programme leader /course leader /module leader.

Person Specification - Band 8

Specification	Essential	Desirable	Examples Measured by
<p>Education and Training</p> <p>Formal qualifications and relevant training</p>	<p>Evidence of:</p> <ul style="list-style-type: none"> • A good degree, and a PhD or equivalent • Demonstrable background through teaching, research, or career experience in at least one aspect of: Artificial Intelligence, Data Science and Modelling. • Programming skills are required (e.g. Python, R), candidates will be expected to teach in Python. • Expected to undertake PCAP within 2 years if limited teaching experience, unless already has a relevant qualification 	<ul style="list-style-type: none"> • Demonstrable background in Statistics • Willingness to upskill in directed aspects of: Data Science, Artificial Intelligence or /and Statistics • Recognised professional accreditation where appropriate • Member of Advance HE 	<p>Application Interview Other</p>
<p>Work Experience</p> <p>Ability to undertake duties of the post</p>	<p>Evidence of:</p> <ul style="list-style-type: none"> • Ability to teach effectively at undergraduate and postgraduate level in a variety of teaching modes • Ability to design and supervise student projects • Teaching experience in the Department's main themes. 	<ul style="list-style-type: none"> • Attracting funds to support teaching • Undertaking teaching and programme reviews 	<p>Application Interview Other</p>
<p>Skills and Knowledge</p> <p>Includes abilities and intellect</p>	<p>Evidence of:</p> <ul style="list-style-type: none"> • An extensive knowledge and understanding of undergraduate and postgraduate education within a relevant discipline • An ability to communicate complex conceptual ideas to widely divergent audiences 	<ul style="list-style-type: none"> • Experience with the Canvas virtual learning environment • An active contribution to University activities such as committees and teaching enhancement groups 	<p>Application Interview Other</p>
<p>Personal Qualities</p> <p>Includes any specific physical requirements of the post - (subject to the provisions of the Equality Act 2010)</p>	<p>Evidence of:</p> <ul style="list-style-type: none"> • Working in an open and transparent way, providing information and communicating effectively with colleagues (i.e., evidence of good collegial academic citizenship) • Collaborative working practises 	<ul style="list-style-type: none"> • A positive contribution to University activities and initiatives including open days, graduation ceremonies etc. and willingness to undertake administrative activities • Continuous Professional Development 	<p>Application Interview Other</p>

Further information



The role attracts a highly competitive starting salary. Further salary progression and enhancements will also be achievable, based on a combination of performance in role and regular salary benchmarking.



The University offers an opportunity the Universities Superannuation Scheme (USS).



For those relocating nationally or internationally a generous relocation package is available.

Each year, we set out our University priorities under the structure of the People Plan and work collaboratively to deliver tangible improvements which support achievement of the University's ambitious goals. It is a journey on which we need to focus on our objectives, celebrate our achievements and

continue to drive high performance. Our approach needs to be both flexible and agile to respond to the voices of our stakeholders and the ever-changing external world, but there must be consistent clarity of commitment to our overarching goals and true alignment with our University values and principles.

For further details on our People Strategy, please visit www.hull.ac.uk

Appointment terms

The candidate appointed will earn a very competitive salary which takes into account their experience, individual contribution and market rates. Most posts have a structured salary progression, ranging from pay [bands 1-10](#).

Annual increments are paid subject to satisfactory service on the date specified in the appointee's contract. This is normally 1 August, if they've completed more than six months' service in their current pay band.

To help secure your future, we offer generous salary-related pension schemes based on employee and employer contributions.

The standard working week is 36.5 hours, but this can vary depending on the appointee's contract.

We offer a generous annual leave package of 28 days basic holiday, plus three extra days for Christmas. That's on top of public Bank Holidays - a total of at least 39 days holidays.

We recognise the importance of family life. We offer a range of benefits including up to 76 weeks of maternity or adoption leave, as well as paternity leave, parental leave, dependants' leave, carer's leave, leave for fertility treatment and the option to request flexible working.



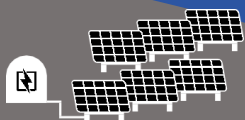
Recruitment statement

We want to provide full information to you at an early stage to enable you to make an informed decision as to whether you are committed to pursuing this position and to outline the University's expectations of all candidates taking part in our recruitment process.

Once you have reviewed the information in this brochure, and in fairness to everyone concerned, we would ask that you give serious consideration to proceeding further with this process if you think you may not accept the position should it be offered to you.

The role will be located in Hull and there is a requirement that the successful candidate will live within commuting distance of the Hull campus. If this might involve a re-location for you, it is of course important that candidates consider how the move might affect them.

Information relating to the reward package, along with relocation details, if applicable, will be supplied to those short-listed for interview. Hull engages in a variety of domestic and international benchmarking exercises to ensure we are extremely competitive in the level of reward and recognition we provide.



Your life in East Yorkshire

East Yorkshire has something to offer everyone - a place where your family can go walking in the Wolds one weekend and be on the beach the next!



“Hull is a great place to relocate.” Sarah Beeny, TV Presenter

Deciding to relocate is a big decision for all the family and you need information on everything, from homes and businesses to sports and events.

As a region, the area is progressive, seeing billions of pounds worth of private sector investment across multiple thriving industries - leading to a diverse array of opportunities, which also include public sector improvements: such as the development of multi-million-pound leisure and cultural facilities. Investment in retail and historical realm works are also being made across all four local authorities - enhancing the area's vibrancy and solidifying its legacy for future generations to come.

The region offers low commute to work times allowing that sought-after work-life balance, lower than average house prices, a fantastic choice of schools and areas of unrivalled natural beauty.

This remarkable region has so much to offer in terms of landscape and heritage, and something for all the family when it comes to shopping, dining and days out. The beautiful countryside of the Lincolnshire and Yorkshire Wolds making up a huge proportion of the area, outdoor lovers will have a wealth of different areas for walking, riding, cycling and running.

When it comes to dining out, the Humber boasts an eclectic array of

award-winning restaurants, gastro pubs and independent coffee shops with fresh and locally-sourced produce from a fantastic selection of shops, with everything from designer boutiques, high street shopping and independent retailers, you'll be spoilt for choice if you're after some retail therapy.

There has never been a better time to make Hull your home, as the cost of living remains among the lowest in the UK and following its incredible transformation - this is only the beginning. The recent £80m redevelopment of Hull's Fruit Market included 109 new homes that sit alongside a hub of independent shops, boutiques and the beautiful Marina.

Ten great reasons to work at Hull



1. We're Going Places

We're investing heavily in transforming our campus into a high-tech learning hub for the 21st century.

2. Career Opportunities

If you have the ambition, we'll help you gain the knowledge and skills to succeed. We want you to have a long-term career with us, so we'll support you every step of the way.

3. A Fantastic Environment

Situated in the leafy suburb of Newland, our beautiful red-brick campus is well known for its friendly atmosphere. We have A Spar convenience store, Costa and JD Wetherspoon (in partnership with Hull University Students' Union) on site. Our restaurants - which promote fair trade and organic products - cater for all tastes.

4. Great Benefits

We offer a competitive salary, generous holiday allowance, excellent contributory pension schemes, hybrid-working and time off for family priorities.

5. Our People

Work with people whose interests and ambitions match yours. We're investing in recruiting the best possible professors, lecturers, researchers and support staff. There's never been a better time to join us.

6. Superb Facilities

The University has one of the country's finest libraries and excellent sport and fitness facilities, -which we're currently upgrading. We've also got a world-class concert hall, a surround-sound cinema and a fantastic art gallery.

7. Location

Hull is a city with a spring in its step. The 2017 UK City of Culture has benefited from huge new investment, especially in the renewable energies sector. What's more, the surrounding East Riding of Yorkshire contains some of the country's most unspoilt scenery.

8. Affordability

Hull is one of the least expensive cities in Britain. According to Numbeo.com (December 2021), renting a one-bed city centre apartment here is 70% cheaper than in London and more than 30% cheaper than Manchester.

9. Staff Support

We'll make sure you're well looked after. Our range of services includes a generous relocation package, the Cycle2Work scheme, free eye tests for computer users and access to support and advice when you need it.

10. Opportunities for All

We're committed to eliminating discrimination on grounds of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

University of Hull,
Cottingham Road,
Hull, HU6 7RX
United Kingdom

hull.ac.uk

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GDPR personal data notice

According to GDPR guidelines, we are only able to process your Sensitive Personal Data (racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic data, biometric data, health, sex life, or sexual orientation) with your express consent. You will be asked to complete a consent form when you apply and please do not include any Sensitive Personal Data within your CV (although this can be included in your covering letter if you wish to do so), remembering also not to include contact details for referees without their prior agreement.