



**CANDIDATE PACK**  
**DEAN OF SCHOOL OF**  
**PHYSICS, ENGINEERING AND**  
**COMPUTER SCIENCE**  
**MARCH 2023**

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# Introduction

**Physics, Engineering and Computer Science influence all aspects of our lives and help provide and maintain the modern high technology world that drives economies and society.**

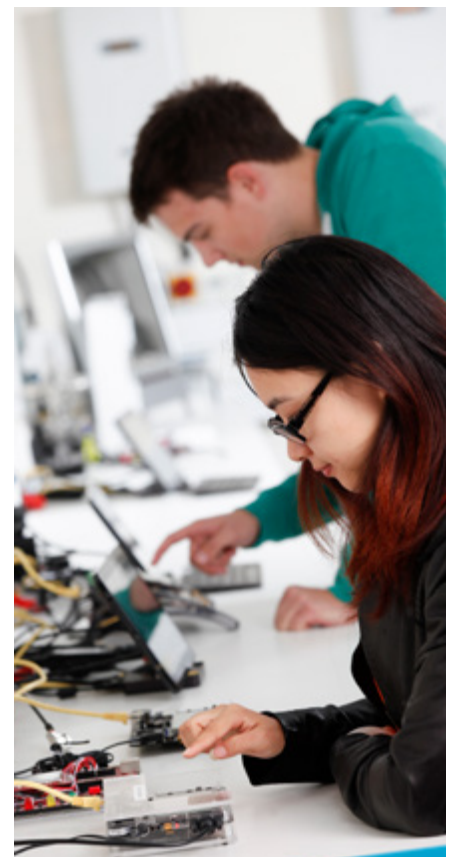
**Our School focuses on equipping students with the technological and scientific skills to tackle global challenges, and providing outstanding research that is of benefit to business, industry and society.**

Our School provides businesses, industry and the public sector with talented graduates that have the skills and advanced knowledge to work effectively in the modern, high technology, world that drives economies and society. We focus on equipping students with the foundational knowledge and practical skills to solve the challenges of our ever-evolving world, and providing world leading and international excellent research that underpins innovation and enterprise.

The courses we provide are designed to reflect the needs of industry now and in the future, and are taught using facilities and equipment that include flight and driving simulators, additive manufacture and 3D printing, communications, electronics and physics laboratories, materials analysis and testing, microfluidics facilities, cybersecurity and specialist robotics laboratories, whilst our outstanding observatory is located nearby in Bayfordbury.

Students learn from exceptional scientists, engineers, computer scientists and mathematicians at the forefront of their field. Close industry links enable them to put their skills into practice on work placements in the UK and abroad. Our students benefit from the strong links we have with businesses such as Airbus, Apple, Aston Martin, Canon, Ford, Global Invacom, IBM, McLaren, Microsoft and Rolls Royce, to start their career.

Our extensive portfolio of Knowledge Transfer Partnership projects help businesses improve their competitiveness and productivity through the better use of insight, technology and skills that reside within the UK knowledge base.



# A message from the Vice-Chancellor



With heritage in Britain's pioneering aeronautical industry, the University of Hertfordshire has been an innovative force in education for 70 years. We are a thriving community of just under 32,000 students and 3,000 staff members from a wide variety of backgrounds.

We support our students, staff and regional businesses alike to consistently reach their full potential. Our people dream big. They stand out and deliver, making a positive impact on their communities – local, national, and across the globe.

We're an anchor institution for the regional economy and community, providing hundreds of local businesses with the support and facilities they need to learn and grow each year. Our strong relationships with industry and award-winning careers services complement high-quality teaching

to ensure Herts students gain the knowledge and skills they need to match their ambition and succeed.

In the latest Research Excellence Framework (REF 2021), we are ranked in the top 25% of all universities in the UK for research impact, and over three quarters of the University's research was ranked as 'world leading' or 'internationally excellent'. We are also ranked in the top ten in every section of the 2022 Postgraduate Taught Experience Survey.

Meanwhile in the 2022 National Student Survey (NSS), we achieved above the sector average for Student Voice and Learning Opportunities while our own overall satisfaction score is 76.29%. In our Staff Pulse Survey, 72% of our employees said they're proud to work here, testament to our wonderful culture. I am immensely proud of our community and all our recent achievements.

We have made significant investment in our campus over many years. In 2022, work commenced on the construction of a new building for our School of Physics, Engineering and Computer Science. It will transform the way we educate our students, and it will become a hub for innovation, research and enterprise. Set to open next year, it will accommodate teaching and research under one roof, enhancing the student experience and creating stronger and more supportive academic communities and teaching spaces.

It is an exciting time for us to be recruiting for the Dean of Physics, Engineering and Computer Science. We welcome a diversity of experiences. Whatever your background – whether in industry or education – we are looking for innovators and leading practitioners with experience in any field within physics, engineering or computer science. With a proven track record of strategic leadership and a sound understanding of the unique requirements of the engineering and science economy, you will bring exceptional interpersonal, influencing and negotiating skills to drive forwards this successful School and its students.

If you would like to be a part of our great community and help to transform lives, and you think you have the expertise we are seeking, we would be delighted to hear from you.



A handwritten signature in black ink, appearing to read 'Q. McKellar'. The signature is stylized and fluid.

**Professor Quintin McKellar CBE**  
**Vice-Chancellor**

# Welcome to the University of Hertfordshire

Set across two campuses and our Bayfordbury Observatory, less than 20 miles north of London, we are a thriving community of just under 32,000 students studying over 550 undergraduate, postgraduate and research degrees in the UK. We also have more than 6,500 students on courses outside the UK through international partnerships and franchise arrangements. We have approximately 3,000 staff members across the group and a turnover of £340 million. Over 50% of our students are female, 65% are Black, Asian and Minority Ethnic and 36% are the first in their family to go to university.

Our students are taught by lecturers with a wealth of experience, both in academic settings and across a breadth of industries. Their expertise, connections and supportive approach equip students with the right skills and confidence to thrive in their future careers.

The University of Hertfordshire is committed to having a positive transformational impact on every member of our community. This is reflected in our vision to transform lives by finding, inspiring and powering potential, giving everyone the opportunity to succeed regardless of their role, background or where they are from. Visit [go.herts.ac.uk/strategic-plan](https://go.herts.ac.uk/strategic-plan) to find out more about our 2020-2025 strategic plan.

Our Board of Governors have overall responsibility for the direction of the University. As Chief Executive, the Vice-Chancellor exercises considerable influence upon the development of the University strategy, the identification and planning of new development and the shaping of the University ethos. He is supported by the executive team – the Deputy Vice-



Chancellor, Secretary and Registrar, Pro Vice-Chancellor International Marketing Communications, Pro Vice-Chancellor Education and Student Experience, Pro Vice-Chancellor Research and Enterprise, and the Group Finance Director. Visit [go.herts.ac.uk/governance](https://go.herts.ac.uk/governance) to find out more.

Our teaching is delivered across seven academic schools: Creative Arts; Health and Social Work; Hertfordshire Business School; Hertfordshire Law School; Life and Medical Sciences; Physics, Engineering and Computer Science; and Social Sciences, Humanities and Education. Visit [go.herts.ac.uk/schools-of-study](https://go.herts.ac.uk/schools-of-study) to find out more. We also have nine professional Strategic Business

Units: Academic Registry, Enterprise and Business Development, Estates, Finance, Human Resources, Library Computer Services, Marketing and Communications, Office of the Dean of Students, Office of the Vice-Chancellor.

Our strong track record of investing in our campus facilities is visible across our campuses. In 2022 construction of our new building for the School of Physics, Engineering and Computer Science began. The multi-purpose five-storey building will be a hub for teaching, innovation, research and enterprise. Visit [go.herts.ac.uk/campus-investment](https://go.herts.ac.uk/campus-investment) to find out more.

## Education and student experience

Excellence in learning and teaching is fundamental to the University of Hertfordshire. We develop students with the knowledge, skills and graduate attributes to succeed in business and the professions. Our high-quality teaching is informed by research, business and the professions to ensure authentic learning experiences for our students.

We have a variety of provision beyond traditional full-time programmes of study, through flexible study patterns, online programmes, and workplace learning opportunities such as degree apprenticeships.

Our commitment to inclusivity and eliminating degree awarding gaps is central to our practice and our personalised approach to pastoral support aligns with our mission to transform lives. We are committed to providing a culturally-enriched and research-informed educational experience, and to equip our students

with graduate attributes for life in a complex and rapidly changing world.

We pride ourselves on the strength and quality of our relationship with our students, delivered through our Student Ambassador and Student Mentor Schemes, Student Representatives, Students' Union, and our Student Communications Strategy. Respecting and responding to the student voice is key to our student experience, as is putting the welfare of our students and their success at the heart of what we do.

## Research

Research constitutes a core part of the institution's activities, and it helps to further our objectives of achieving far-reaching engagement with business, communities, and national and international partners. Our research and knowledge exchange activities are closely aligned to meet the key future demands of business and society. We foster research with global partners, encouraging and supporting staff to

apply for international collaborative funding to take forward our world-wide research and enterprise mission.

We have developed a dynamic environment and embedded research culture where research is expected to contribute to learning and teaching at all levels. This is evidenced by the latest results from the Postgraduate Research Student Experience (PRES) Survey in 2021, where we achieved an overall satisfaction level of 85%, putting our overall performance as 10th - 6% higher than the global average.

We actively support the next generation of researchers through extensive researcher development and leadership programmes. These equip both research students and early career researchers with the transferable skills most sought after by employers, together with the confidence and ability to be successful in a wide range of leadership roles.

Our research is organised into six global challenge research themes: Food; Global Economy; Health and Wellbeing; Heritage, Cultures and Communities; Information and Security; and Space. Research is conducted in twelve research centres together with a further twenty-four research groups and units, which have close links with professional organisations and other research institutions, facilitating collaboration and maximising the output and impact of their research.

In the latest Research Excellence Framework 2021, over three-quarters (78%) of the University's research has been ranked as 'world leading' or 'internationally excellent'. In addition, the proportion of our research that has been ranked as 'world-leading' has more than doubled since 2014, from 11% up to 26%. Our research has real-world benefits too: 90% of our research impact has been classified as 'outstanding' or 'very considerable'.

The University made submissions to 12 units of assessment, with strong performances across a broad range of subject areas, including ranking in the top 25% for research impact in allied health, business and management, and history. Computer Science saw 90% of its overall research ranked world-leading and internationally excellent, while psychology ranked joint first nationally for research impact, obtaining a 100% outstanding rating.



## Global engagement

We have more than 13,000 students from overseas, and each of them adds significantly to the social, educational and cultural life on campus. The consequent expansion in the number of overseas alumni provides an invaluable network to support our ongoing international development activities.

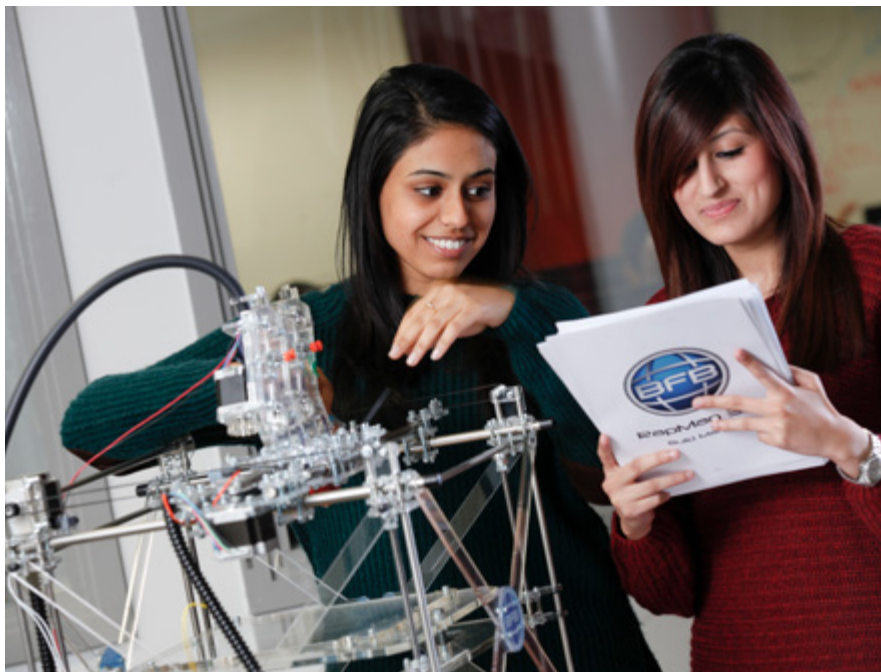
Herts has been active internationally for many years and has a strong profile in its key overseas markets, which include Malaysia, China, India, Pakistan, Nigeria, and Europe. Global engagement is a key strategic driver, in terms of both developing access to its educational provision for individuals and organisations around the world and extending the global horizon of its staff and students.

We engage in international franchise and supported distance-learning partnerships around the world, and have an extensive network of overseas partners, delivering University of Hertfordshire programmes overseas and providing academic support for those undertaking remote study with us. We actively seek to encourage all our students to develop as culturally aware and engaged global citizens. This is enabled through strategies to internationalise and decolonise the curriculum, a diverse body of staff from across the world, and an extensive international exchange programme. This programme provides placement and exchange opportunities for staff and students within key discipline areas through our extensive international links and global college network.

## Enterprise

We are recognised as an enterprising university in which our research, knowledge exchange and commercial activities are closely aligned to meet the key future demands of business and society. We provide a range of high-quality business expertise, consultancy, and client engagement with demonstrable outputs that meet the needs of our partner organisations.

We play a leading role in supporting the business needs of our region, providing a range of high-quality workforce training and Continuing Professional Development. Our unique all-campus business incubator supports student, graduate and external start-up



businesses in the county and beyond – a service supported by our new Enterprise Hub, which opened on our de Havilland Campus in 2021.

The University has grown its income through the delivery of a wide range of services to the business community and the public via its subsidiary companies. The group also holds investments in some small start-up companies.

Exemplas Holdings Limited, a wholly owned non-profit distribution organisation, has a wealth of expertise in a range of disciplines that enhance the performance of small and medium-sized enterprises. It has been successful in providing a range of consultancy, including corporate development, leadership, skills, and training, change management, enterprise, and diversity expertise necessary to help local businesses prosper and grow.

## Awards and achievements

In 2021, the Institute for Fiscal Studies ranked Herts 16th in England for social mobility impact. Over 80% of courses are professional body accredited.

This year we climbed 12 places in the Complete University Guide 2023, now ranking 68th in the country. We also climbed 16 places in the Guardian University Guide 2023 and are now ranked 74th. A number of our courses

were especially highly ranked: 1st for Paramedic Science, and Animation and Game Design, 6th for Social Work, and 8th for Economics.

The University is one of only 38 universities awarded the Bronze Race Equality Charter mark. We also hold an Athena Swan Bronze award for gender equality at an institutional level, with two Schools holding Silver and five Schools holding Bronze awards.

We are one of only 20 universities awarded University Enterprise Zone status, and we have the most successful Formula Student Racing team in the United Kingdom.

## Employability and entrepreneurship

In addition to the highest quality teaching and learning, we tailor our programmes to the demands of employers, meaning that all schools work with employers in the industries that employ our graduates to shape our teaching programmes.

We have developed a successful record of encouraging our students to take on a wide range of student placements to enhance their learning opportunities and adaptability to the future jobs market. We have long-standing links with business, industry, public sector, and professional organisations.

# Our history

1952 -  
1959

## Hatfield Technical College



1952 saw the opening of a new Technical College in Hatfield, with HRH Prince Phillip, Duke of Edinburgh performing the opening ceremony. With its roots in Britain's pioneering aeronautical industry, the College soon established itself as an innovative force in education, awarding our first BSc (Engineering) qualifications to external students of the University of London in 1959.

## 1960 - 1968

## Hatfield College of Technology



In 1960, the institution was renamed Hatfield College of Technology and began to invest in computer science, buying the College's first digital computer in 1963 – a National Elliott 803B digital computer, at a cost of £24,010. In 1965, the college became recognised for 13 Honours Degree courses, including Computer Science and Civil Engineering, with BA (Hons) Business Studies coming a year later.



## 1969 - 1991 Hatfield Polytechnic



In 1969, the College was designated as Hatfield Polytechnic, and by 1970 had formed the best equipped and staffed Computer Centre in education. In 1975, the Polytechnic was reorganised into five schools of study and a centre for Management Studies.

## 1992 - 2012



Hatfield Polytechnic became the University of Hertfordshire on 29 June 1992. In 2003 the de Havilland Campus, a £120 million project, was opened by HRH Prince Philip, the Duke of Edinburgh. Professor Quintin McKellar was appointed Vice-Chancellor in 2011. He received a CBE for services to science in the same year. The £10 million Law Court building opened on the de Havilland campus later that year.

## 2013 - present



Recent years have seen an abundance of new campus developments. In 2013, building work began on the new College Lane Campus accommodation. The major project also included a gym, sports pitches and social spaces, and was completed in 2016. The £50 million Science Building was opened by HRH Prince Philip, the Duke of Edinburgh in 2016. Our Enterprise Hub and Institute of Sport opened in 2021, while in 2022 the Law Court building was named in honour of alumna and Visiting Professor Grace Ononiwu. Building on its law provision, the University became the first since 1997 to launch a new barrister training course.

# About the School of Physics, Engineering and Computer Science

## Introduction and summary

The School of Physics, Engineering and Computer Science is one of seven Schools of the University of Hertfordshire and is a Strategic Business Unit of UH.

From the inception of the University in 1992, the School has gone from strength to strength and has developed a strong international and national reputation for its creative, industry-engaged teaching and research. The School is financially sound, based in a well-resourced set of buildings on the College Lane Campus and is well positioned to continue its success into the future. The University is looking for a person able to further enhance the activities, culture and reputation of the School.

There are around 300 permanent School staff (comprising academic, research, technical and professional)

as well as around 200 Visiting Lecturers.

This post is created as a result of the current postholder moving to another HEI to take up a Pro Vice Chancellor position.

## History and current approach

The current school is formed from bringing together three separate schools of Physics, Astronomy and Maths, Engineering and Technology and Computer Science in 2019 and 2020. Each of these schools has its own long history intertwined with the history of the University itself.

The current School is home to some of the UK's best teaching facilities. We offer a stimulating and inclusive learning community which prepares our graduates for careers with top organisations. Our graduates have worked for NASA, Ferrari, Amazon and Morgan Stanley to name just a few!

We truly are a multidisciplinary School, and we welcome you to join us.

Our School has excellent undergraduate laboratories. Our students benefit from world-class learning and experiential facilities to develop the practical skills they will need to achieve their dream career. Our Bayfordbury Observatory is regarded as one of the best astronomical teaching observatories in the country. Our students get hands-on experience with our range of optical, radio and solar telescopes. Our flight simulators, supersonic wind tunnels and driving simulators help our engineers of the future bring theory to life. While our specialist artificial intelligence robotics and cyber security labs, inspire the design and development of the next generation of robotics and computer security professionals.

Our students are taught by exceptional academics from across the STEM spectrum. Our renowned research influences our teaching. Every step of the way, our students learn about the latest advancements in their specialist area. This includes our internationally recognised research into the astrophysics of galaxies and black holes, quantum computing and climate change. Plus, our research on green energy, energy harvesting, biodetection and protection of people, plants and animals. Meanwhile our research in computer science is advancing biocomputation and algorithm research. Our strong links to industry, in companies such as Airbus, Rolls Royce, Apple and Microsoft among others support our employability.



## Organisation, management and financial position

The Dean reports in directly to the Deputy Vice-Chancellor and is a member of the Chief Executive's Group of the University.

The Associate Deans manage thematic areas across the School working with others, including Pro Vice-Chancellors with relevant portfolio responsibilities. Associate Deans manage Research and Enterprise; Teaching, Learning and Student Experience; Academic Quality Assurance and Enhancement; International, Community and Partners.

There are three Heads of Department, one each for Computer Science, Engineering and for Physics, Astronomy and Mathematics with key responsibilities for academic staff, courses and students in their subject and research groups. There are team leaders which include the School Business Manager who manages the School Office and the administrative infrastructure of the School with a team of around 10 staff, and the Senior Technical and Resource Manager who manages a team of around 38 professional technical staff.

The School operation is supported by a number of Business Partners who may be working across more than one School – these include the School Financial Manager, the School HR Business Partner and other key nominated colleagues who have

School responsibilities including in information management and learning and teaching development.

The most senior committees in the School are the School Executive Group with strategic leadership and managerial responsibilities, and the School Academic Committee with overarching quality and standards responsibilities. The latter reports to Academic Board. Both of these are chaired by the Dean. The School Operational Group meets monthly to deal with delivery, practical, operational and urgent matters.

The School is a Strategic Business Unit which is responsible within the strategic operation of the University, with the Dean taking overarching responsibility for the Unit's budgetary performance, within the University financial framework. The SBU produces an annual strategic plan including budget forecast, student numbers and specific objectives aligned to the University 5 year strategic plan and any shorter term objectives. All income is reported within the School budget from which an annual contribution is negotiated.

In financial terms the School is financially sound and has performed well, and is one of our largest Schools in the University in terms of income. Research, commercial and franchise income make a good contribution to the annual budget of the School.

## Courses, students and subjects

The school is committed to designing and delivering outstanding learning experiences that enable its students to succeed in their future careers in business, industry, academia and public service.

Currently, the school has an enrolment of over 6,800 students, with approximately 2,800 undergraduates, 3,900 taught postgraduates, and 180 research postgraduate students. The school offers 186 awards across 72 programmes of study encompassing a wide range of STEM subjects, including Data Science, Mathematics, Physics, Astrophysics and Space Science, Aerospace Engineering, Automotive Engineering, Civil Engineering, Electronics and Electrical Engineering, Mechanical Engineering, Operations and Supply Chain, Robotics, Artificial Intelligence, Computer Science, Cyber Security and Networks, Information Technology, and Software Engineering.

Our portfolio of programmes comprises BSc, BEng, MEng, MPhys and MSc qualifications, which are delivered through a range of modalities that include campus-based, degree apprenticeship and online distance learning. The pedagogical approaches employed in our programmes focus on authentic and innovative approaches to learning, teaching and assessment. For example, engineering students develop practical skills through CDIO (Conceive Design Implement Operate), astrophysics students learn hands-on at our nationally leading observatory, and computer science students studying cyber security develop their practical skills operating in a semi-structured environment simulating real-world scenarios.

Additionally, our programmes are accredited by a wide range of professional bodies such as the Institute of Physics (IoP), Institution of Engineering and Technology (IET), Institution of Mechanical Engineers (IMechE), Joint Board of Moderators (JBM), Royal Aeronautical Society (RAeS) and BCS, the Chartered Institute for IT.



## Research and commercial development

The research and enterprise activity carried out in SPECS makes a significant contribution to the research portfolio, culture and environment at the University. SPECS typically accounts for 40% of total UH research income on an annual basis. SPECS has a successful research portfolio and organisation, and in line with the University's research strategy our vision is to further strengthen our research position, carry out high-quality research and enterprise activity, increase income generation, and enable us to move forward with confidence into any future research assessment exercise. A strong feature of this vision is the desire to encourage and support more cross-Department collaboration, to encourage application of research for end user benefit, and to seek more opportunities for the impact of our research to be realised.

The Research Excellence Framework (REF) 2021 results for SPECS were truly excellent. SPECS submitted under 3 Units of Assessment (UoAs): Physics, Computer Science and Engineering. In total we submitted 110 staff representing 34% of the University submission, which was the single largest School submission. Across the three Departments 85-90% of research was rated as 'world-leading' or 'internationally excellent' while the FTE submitted increased across the board. Impact case studies were a particular strength and generally performed ahead of the sector.

Research in SPECS is organised and delivered within six designated Research Centres: the Centre for Networks and Security Research, the Centre for Engineering Research, the Centre for Data Innovation Research, the Centre for AI and Robotics Research, the Centre for Astrophysics Research, and the Wolfson Centre for Biodetection and Instrumentation Research. These Centres, and the research groups that sit within them or stand alone, are critical to the vibrancy of research culture and activity, to the development of early career academics and researchers, and to the delivery of research and enterprise outcomes and impact. Bespoke facilities include a laboratory for LiDAR-based research in atmospheric



physics, the Robot House which is an EPSRC National Infrastructure, and a High-Performance Computing cluster. This structure provides SPECS with the opportunity to work across Department discipline areas and capitalise on synergies, develop industrial and business collaborations to exploit applications for our research, and access new sources of funding.

SPECS research centres are led by a Centre Director and have considerable autonomy in how they spend research and enterprise income. On an annual basis we invest over £1.2M from both overheads on grants and University capital and revenue funds into our research labs and in excess of £2.2M of QR funding resulting from our REF success into fully funded research studentships and new research staff contracts. Our research active staff are given the time and resource to collaborate internationally, as well as with colleagues from across the University in multi-disciplinary Research Centres, some of which are led by SPECS staff.

In 2024 SPECS will be moving into a £100M new building with substantially improved facilities for lab-based research. SPECS also has access to a £12M Innovation Hub hosting social spaces for entrepreneurs, academics and students, and is home to the UH researcher in residence programme, Knowledge Exchange and the University accelerator.

## Partnerships and networks

The School is active in regional, national and international networks and partnerships. Taking part in Erasmus and also within the University Study Abroad scheme.

The School works with many local schools at programme, School level and as part of University outreach. The School runs an exciting programme for schools and children's community groups at the University of Hertfordshire Observatory at Bayfordbury, providing a planetarium session, and astronomy talk and a tour of the telescope. The School also runs taster days (e.g. Woman in Engineering) and Open Days.

The School is actively involved in promoting public understanding of mathematics, engineering and science, hosting high profile activities like the Royal Institution Mathematics Masterclasses.

The School also has an extensive network of international partners, range from undergraduate franchise programmes in Egypt, Sri Lanka, Singapore and Malaysia, to supported distance learning partners in Pakistan and Singapore, from large scale articulation arrangements with multiple institutions in China, to flying school service provider in USA. These partnership activities, together with the exchange programme and short term international outward visits, giving the students a truly international experience when studying in the School.

## Buildings and resources

SPECS is a thriving, complex School which is arguably the jewel in the University of Hertfordshire's crown, as its reputation hails back to the technical college roots of the University itself. Due to the unprecedented growth in student numbers and the ambitious nature of the current senior management team, the University has committed to an £89M base build 5-storey specialist building facility for the School on the College Lane campus.

This state of the art behemoth has been designed to not only serve the curriculum but also to immerse our students in a modern world class workplace. The new building will become a bedrock of the regional economy, an essential piece of strategic infrastructure required to underpin the future of economic success of Hertfordshire, driven by STEM innovation.

The building will be topped out in March 2023 at which point internal fit out will commence with the School due to take control in February 2024, ready for specialist installations and student use by September 2024. The incoming Dean will be instrumental in the success of this exciting and ambitious project due to the complexity of undertaking. Outstanding change management skills and leadership are going to be essential to ensure that current staff and students make the transition as smoothly as possible.

As exciting as the new building is, it is not the current building that SPECS occupies or will continue to operate in. The School is currently primarily based on the College Lane campus but benefits from two specialist facilities that are remote to it. On campus, the School occupies a 9500m<sup>2</sup> range of spaces from 6000m<sup>2</sup> highly specialist research laboratories through to offices. An example of a specialist spaces at College Lane would be our suite of cybersecurity laboratories, the laser laboratories, and blend of flight simulators, wind tunnels and advanced materials laboratories.

The majority of our specialist facilities are housed in the Main Building and coexist alongside both traditional and hybrid workshop/teaching

spaces. These include fully functional professional and student machine shops, aero and auto simulators, Cyber Security laboratories and our flagship CDIO project-based engineering teaching spaces. Many parts of the School have embraced the CDIO / project-based pedagogy and this has led to the development of some of the most forward-thinking Engineering degrees available in the UK that challenge our staff and students everyday to improve and apply their practical skills and knowledge. In addition to the Main Building, the School has an Automotive Centre which houses engine test cells and our thriving Formula Student racing team and "The Barn" which is a dedicated building for Civil Engineering and other practical activities.

Being primarily in the Main Building, SPECS staff and students have choice of where to go for refreshments depending on the experience they want. Our facilities sit between the main café at the entrance of the Main Building and the vibrant Hutton Hub which hosts a range of outlets such as Starbucks and Subway but also houses the Refectory which offers a range themed hot lunches daily during term time.

Off campus, the School is fortunate to have the Bayfordbury Observatory which comprises a range of modern telescopes housed in domes, a solar telescope and some radio telescopes that form part of a larger European network. This facility is heavily used overnight between October and March for students undertaking their practical work. The facility is based in the Hertfordshire countryside, in a beautiful setting, approximately 6 miles from the College Lane campus.

In an unassuming house in Hatfield, the School has "The Robot House" which is a recognised as a National Centre of Excellence for the study of human/robot interaction. The house is wired with sensors and populated by robots who are programmed to autonomously facilitate assisted living.

In addition to these specific facilities, the School and its students use shared University resources such as lecture halls, classrooms and computer laboratories which are managed centrally through the University's Time Tabling System which the School also

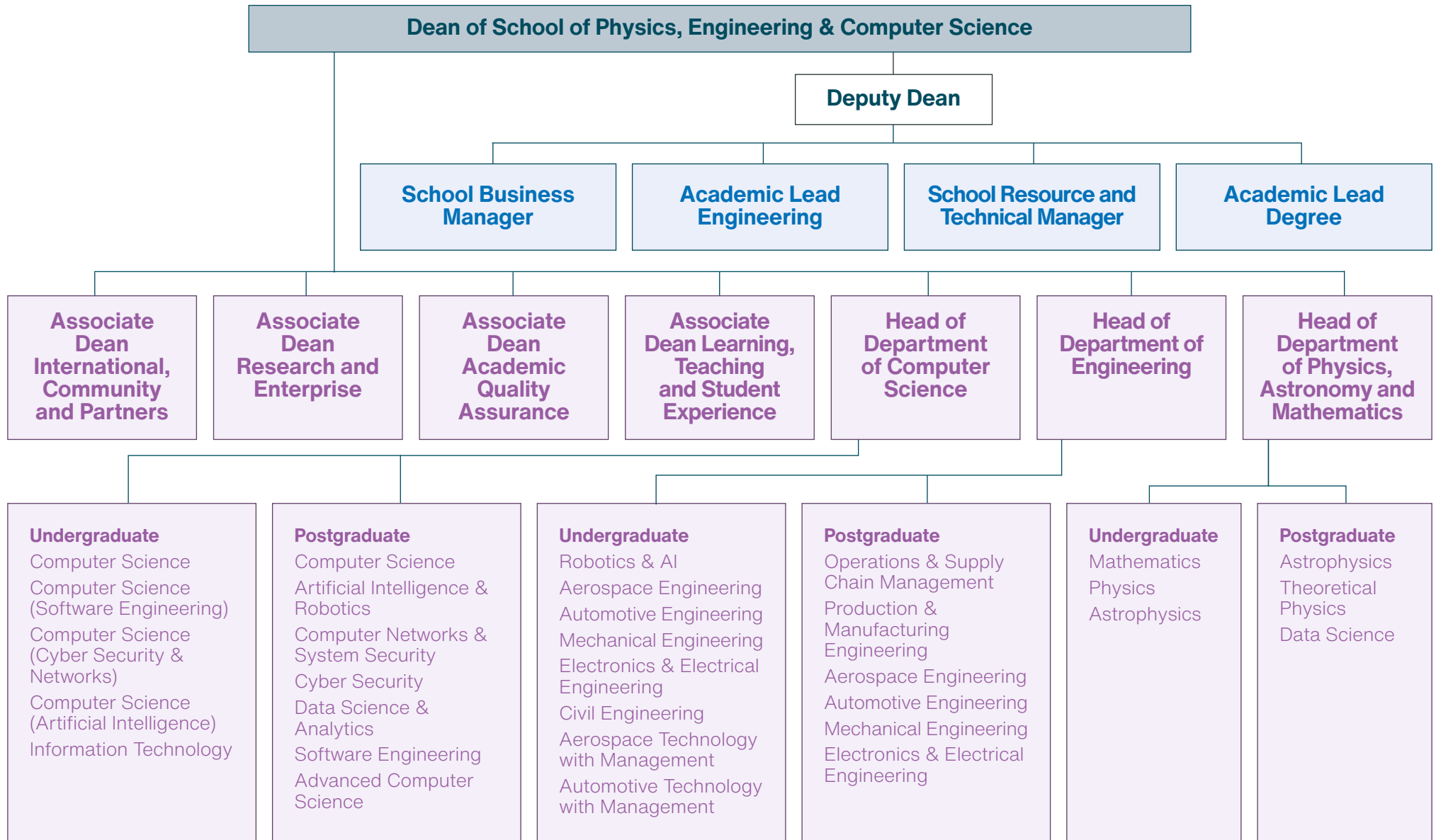


aligns too. Additionally, the School has its own intranet portal which is used for a variety of tasks, including room booking of the SPECS Boardroom.

The equipment resources in the School are vast, as to be expected, given the range of subjects studied. These are developed, sustained and operated by the Technical Services Group who are responsible to ensure that facilities are available when required. Recently, the School has adopted an asset management system which in time will also form the backbone of the Schools Health and Safety system. This is imperative due the necessarily high-risk nature of some of our activities by HEI standards.

As the School operates as a business unit, it is within the Dean's role to oversee the development of the annual business plan which the University considers when allocating the Schools operational budget, determines any significant capital expenditure, any refurbishment of spaces and staffing levels. Such negotiations have to be managed with the Board of Governors, the Office of the Vice Chancellor, Estates and other centralised service providers such as Library and Computing Services who supply all IT equipment and access to learned material.

School Structure



# The role of the Dean of School of Physics, Engineering and Computer Science

**This is a unique and exciting opportunity requiring the delivery of visible leadership and direction both within the School and University of Hertfordshire, and to the wider academic, business and industrial sector both in the UK and internationally.**

**The Dean will be at the forefront of ensuring that the School of Physics, Engineering and Computer Science operates as a truly exceptional academic community, inculcating a culture of pride and excitement in all who live and work here and contributing explicitly to the distinctive profile and positioning of these disciplines in the UK and beyond.**

**Candidates will have a high degree of credibility in one of the core subject disciplines within the School, founded on a substantial record of achievement in the field as an academic or industry practitioner.**

## Main purpose of the post

A School is a Strategic Business Unit within the University. The University sets a five-year Strategic Plan and the Dean then has responsibility for the SBU's aspirations, financial and academic health. The role of the Dean of School is to deliver those strategic plans as well as embracing academic management and leadership to ensure the highest standards of teaching and learning, research, knowledge transfer, scholarship and student experience within the subjects or disciplines for which the School is responsible. The Dean of School has considerable freedom to be innovative and creative in developing the School's reputation using the resources available. An important role of the Dean is to take forward the people agenda across the SBU developing an inclusive culture that embraces the University values and objectives.

The Dean of School will not only develop the provision of education and research within their own School but will also facilitate interdisciplinary collaboration with other Schools where appropriate. The Dean will lead the School's engagement with industry, employer organisations and professional bodies relevant to the disciplines represented in the School and will support staff in the School to actively engage in the generation of external income from educational provision, research and business-related activities.

The Dean of School will be expected to engage externally in the development of their discipline area and grow the external profile of both the School and University.

The Dean of School will be expected to create and maintain a scheme of delegation which shows clearly the officers within the School to whom the Dean has delegated authority, the limits of that authority and the

purposes for which it may be exercised across both academic and professional portfolios.

The Dean of School is Head of the Strategic Business Unit and Chairman (ex officio) of the School Academic Committee.



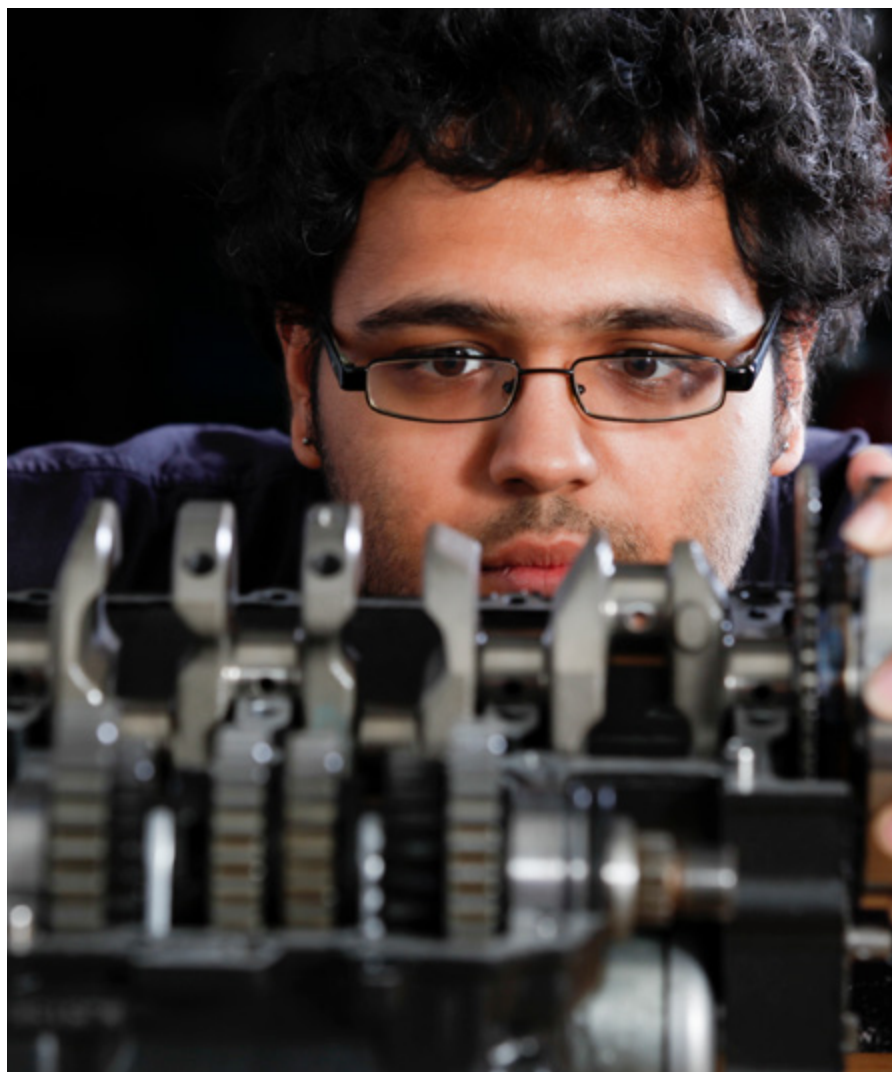
## Principal duties and responsibilities

### Management principles and responsibilities

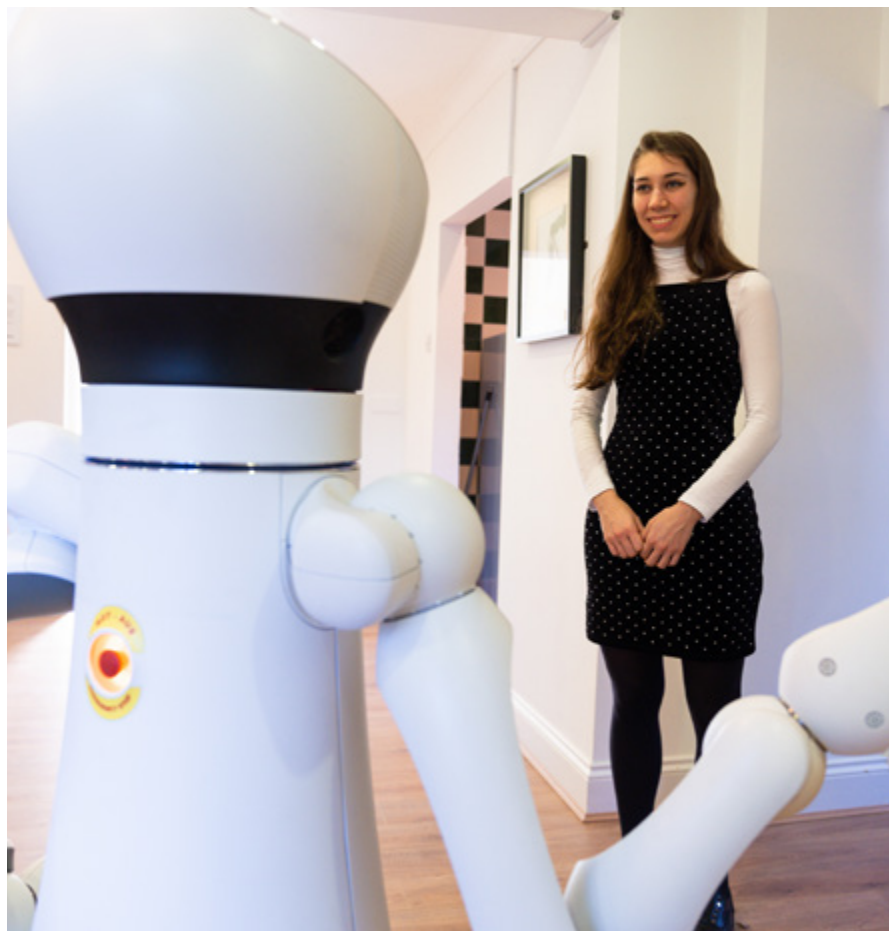
- As the senior manager, establish and maintain an appropriate management structure within the School, which is consistent with any generic principles or other structures determined by the Vice-Chancellor.
- Manage all aspects of the operation and administration of the School ensuring high standards are maintained (including academic and commercial collaborations) in accordance with and within any limits established by University policy or regulation, including but not limited to, all academic provision, research, consultancy, and commercial activities. Financial
- Promote and manage the School's engagement with associated industries, employer organisations and professional bodies, in particular in relation to student placements, programme advisory groups, commercial activities and graduate employment.
- Manage, commit resources and authorise expenditure in accordance with and within any limits established by University policy and regulation. Ensure that, in all respects, the management and conduct of the School facilitates and enables the achievement of the University's Strategic Plan.
- Achieve all relevant Key Performance Indicators and performance targets, including financial targets and student recruitment targets as well as equality objectives.
- Discharge all responsibilities assigned to Deans of School under the terms of University policy and regulation including those responsibilities that relate to staff performance and staff and student discipline, grievance and complaints.
- Chair the School Executive Group and Chair the School Academic Committee ensuring that it carries out the functions of the Academic Board effectively.
- Communicate effectively with all staff and students within the School.
- Achieve the best possible practice and outcomes in all aspects of the School's activities.
- In liaison with Marketing and Communications, ensure appropriate marketing and promotion of School activities, and student achievements, within the relevant markets.

### Academic profile

- Ensure that the academic profile of the School is appropriate, relevant and consistent with the strategic direction of the University.
- Develop and keep under review the School's academic portfolio (short- course / undergraduate, taught postgraduate and research degrees).
- Formulate programme proposals and proposals for external academic partnerships and collaborations.
- Establish and maintain links and networks that connect the School's subjects / disciplines with employers, relevant industries, research establishments, business, commerce and the professions.
- Facilitate and encourage effective liaison with current developments in the work of other Schools and organisational units elsewhere in the University.







are observed and that quality is maintained and improved continuously.

- Ensure that all necessary student documentation and accurate records are created and maintained.
- Be the Accountable Officer for the purposes of internal and external subject review.

### Research innovation and enterprise

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- Foster and promote a culture of industry engagement, research, scholarship and enquiry across the School. Lead the development of the School's next REF submission.
- Ensure all School academic staff engage in appropriate scholarship activities and that over time an increasing proportion of these staff undertake research resulting in recognised outputs, the supervision of research degree students and other research deliverables.

### People and culture

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- Oversight of staff issues within the School including excellent people management spanning appointment, probation, appraisal, development, promotion and progression, and review of performance according to procedures agreed by the University.
- Ensure staff are encouraged to commit to and take ownership of their own personal development and maintain records of staff development activities.
- Oversight and monitoring of staff workloads in order to ensure an equitable distribution of staff loadings across the School and the most effective use of staff resources.
- Ensure talented staff in the School are recognised, rewarded and retained, and where appropriate suitable succession plans are put in place.

### Student experience

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- Take all necessary steps to implement the University's strategies relevant to the student experience so that, in all respects, the student experience within the School remains excellent at all times.
- Oversight of student affairs within the School, including academic appeals, grievances, discipline and
- Ensure student representation on appropriate committees and boards.
- Manage the recruitment and support of research students, including the establishment and monitoring of quality assurance measures in relation to the appointment of supervisors, the allocation of resources, the provision of an appropriate training environment, and the monitoring and evaluation of progress of individual students.

### Learning and teaching

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- Ensure the effective provision of the teaching and assessment for all programmes within the School and to ensure interdisciplinary collaboration with other Schools as appropriate.
- Encourage innovation and the development of discipline-specific pedagogy aligned with relevant University policy and strategy and to ensure focus is maintained on the continuous improvement of quality.
- Provide a suitable model of face to face and virtual learning (blended learning), prioritising student need.

### Academic standards

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- Responsible to the Academic Board for the academic quality assurance and standards of the academic provision of the School.
- Ensure that in the recruitment of all students, the University's general principles of admission

- Discharge the duties of line management for all staff directly managed by the Dean of School.
- Develop and progress equality, diversity and inclusion goals and actions and attain a staff community that is representative of the students.

## Other

- To take the lead and demonstrate visible commitment in driving high standards of health and safety throughout their School commensurate with current health and safety legislation and the University's Health and Safety policy.
- Meet School targets, for example for commercial income generation, research activity, staff development and home / international student numbers, as set in the annual planning round.
- Act as a primary interface between the alumni of the School and the University, such activities to include social, public relations and fund-raising events.
- Maintain experience in academic delivery across teaching, research or enterprise at a minimum equivalent to 0.2fte through regular practitioner activity.

- Personally contribute, as required by the Office of the Vice-Chancellor, to University management and to strategic and policy development across the University. Ensure staff know and support University objectives.
- Other duties and projects assigned from time to time by the Office of the Vice-Chancellor.

## Supervision received

The Dean of School reports to the Deputy Vice-Chancellor (DVC) but is expected to operate with a substantial degree of autonomy in carrying out the above responsibilities and duties.

## Supervision given

The Dean of School will oversee the work of all staff members of the School. The Dean is assisted in this by Heads of Subject Groups, Heads of Department and Associate Deans, Technical managers and staff including professional services staff.

## Relationships/contacts

**Internal:** The Dean of School will have regular contact with the DVC, Pro Vice-Chancellors (PVCs), other Deans, Heads of Departments, Associate Deans of Schools, and professional managers.

**External:** Deans / Heads of Schools / Departments in the subjects / disciplines represented in the School within other Universities, appropriate bodies and senior management in the education sectors, industry and commerce.

This document outlines the duties required, for the time being, of the post titled Dean of School, to indicate the level of responsibility. It is not intended to be a comprehensive or exhaustive list and the Deputy Vice-Chancellor may vary duties, from time to time, which do not change the general character of the post or level of responsibility entailed.



# Person specification

## Qualifications

### Essential

- A degree or equivalent, or substantial proven relevant industry experience.

### Desirable

- Educated to postgraduate or higher level.
- UK Qualified Teacher Status and / or Fellowship of Advance HE (formerly the Higher Education Academy).

## Experience

### Essential

- Credibility or experience in one or more discipline areas within the School, including undergraduate and postgraduate study.
- Knowledge and experience of working within or partnering with an HEI environment.
- Relevant proven strategic leadership track record, achieving high levels of engagement and motivation across a multidisciplinary team of staff.
- Extensive experience relevant to the academic portfolio and its development.
- Experience of, or ability to quickly come to grips with relevant accrediting bodies' quality assurance, regulatory frameworks and compliance requirements of the scientific and / or HE environment.
- Experience developing and delivering operational business plans aligned to higher level strategic goals and built upon collegiate and collaborative input.
- Experience of advocacy of EDI objectives.



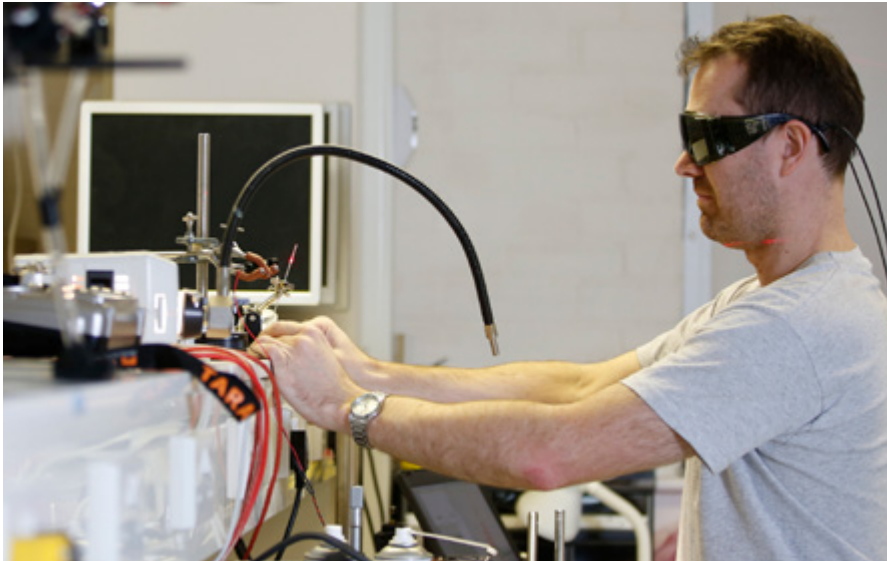
### Desirable

- A track record of impactful, high-quality research and / or equivalent industry / professional practice experience.
- Experience of Athena Swan, Race Equality Charter Mark or other relevant diversity-related accreditation schemes.
- Proven commercial acumen in a relevant area.
- Experience chairing formal meetings.
- Suitable experience to meet the requirements for a professorial title.

## Knowledge and Ability

### Essential

- Sound understanding in one of the major subjects within the School.
- Knowledge and experience of the complex health and safety specific to the discipline areas within the School.
- Knowledge and understanding of the scientific economy, employability and social engagement and its impact within the wider economy, relevant to the School.
- Knowledge of the principles of good management and good people management, e.g. through the completion of management or business-related courses.



- Strong management skills motivating individuals and teams to deliver to high standards in what they do and how they do it.
- Proven ability to build successful working relationships and partnerships with external organisations.
- Strong analytical skills, able to review multiple sources of data to develop clear recommendations.
- Good understanding of key financial procedures including budget planning, forecasting, budget control (for example planning of student numbers).
- Knowledge and understanding of the key strategic goals of the University.
- Excellent organisation and planning skills with an ability to deal with conflicting demands and conflicting priorities.
- Ability to balance a people focused culture with the need to make difficult decisions regarding finances and resources.
- Proficiency in the English language with excellent written and oral communication skills.
- Experience working within committee structures.

#### **Desirable**

- Proven ability to develop working relationships within an HEI.

#### **Behaviours and attributes**

##### **Essential**

- Strong interpersonal skills to create good working relationships both internally and externally.
- Highly developed influencing and negotiating skills.
- Embraces, embodies and is able to act as a role model to the UH values:
  - Friendly
  - Ambitious
  - Collegiate
  - Enterprising
  - Student-focused.
- Can-do attitude and demonstrates initiative.
- Flexible, responsive and adaptable to SBU and workload requirements.
- Demonstrates tact and diplomacy.
- Ability to work under pressure to meet deadlines.
- Proven track record in advancing inclusion and representation.
- Commitment to continuous personal and professional improvement.

# The appointment process

The appointment of the Dean of School of Physics, Engineering and Computer Science will be made as soon as possible. The vacancy is currently being covered by an interim post-holder following the departure of the previous Dean to a new HEI. We can provide a smooth transition as part of making a successful appointment.

## How to apply

Anderson Quigley is acting as an advisor to the University of Hertfordshire. An executive search process is being carried out by Anderson Quigley in addition to the public advertisement.

If you have the qualities and attributes we seek, we would be delighted to hear from you. To apply, please submit a full CV which should include:

- educational and professional qualifications
- full employment history
- current salary, including any relevant benefits
- the names and addresses of two referees. Referees will not be approached until the final stages of the selection process and not without prior permission from candidates.

You should also include a personal statement that demonstrates your ability to meet the person specification (maximum two pages).

Please submit your documents to <https://andersonquigley.com/candidates/> using the reference **AQ1719**. Should you wish to discuss the role in strict confidence, please contact our advising consultants at Anderson Quigley:

- Carolyn Coates on +44 (0)7825 871 944 or [carolyn@andersonquigley.com](mailto:carolyn@andersonquigley.com)
- Elliott Rae on +44 (0)7584 078 534 or [elliott@andersonquigley.com](mailto:elliott@andersonquigley.com)

Please provide suitable daytime and evening telephone contact details.

## Key dates

Applications should be made no later than noon on 21 April 2023. Longlisting will take place on Thursday 04 May, and successful applicants invited to the selection stage with Anderson Quigley. Shortlisting will take place on Thursday 18 May and shortlisted applicants will be invited to an interview day which will include a formal interview panel.

The interview process will take place on Monday 12 June 2023 and will include a tour of the campus and an opportunity to meet staff from the School of Physics, Engineering and Computer Science.

The successful applicant will be expected to join us as soon as possible thereafter.

## Terms and conditions

The University will offer a remuneration package fully commensurate both with the significance of this appointment and the calibre of the successful applicant. The successful candidate will be appointed as the Dean of the School on a four-year renewable basis, subject to performance. The Deanship will carry a competitive salary plus Performance Related Variable Pay, generous pension and 30 days holiday. The postholder will be expected to be based on campus for the majority of the working week.

Our vision is to transform lives and UH is committed to Equality, Diversity and Inclusion and building a diverse community. We welcome applications from suitably qualified and eligible candidates regardless of their protected characteristics, and recognise there are different ways applicants may achieve the criteria in this document. In addition to the benefits above the post-holder will benefit from flexible location working for non-campus days, discounted Sports Village membership, personal and professional development and family-friendly policies. We are a Disability Confident Employer.

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