



Job Application Pack

Head of Engineering

£22,917 to £38,633 MPS/UPS

plus TLR1B £9,476

R&R available for suitably qualified
candidate

Contents

Letter from the Principal	Page 3
Application Details	Page 4
About NUA	Page 5
The Academy	Page 5
Curriculum	Page 5
The Academy Day	Page 5
Pastoral Care	Page 5
Industry Partners	Page 6
Education Partners	Page 6
Facilities	Page 6
Job Description	Page 7
Person Specification	Page 12

Letter from the Principal

Dear Applicant

Thank you for your interest in our recently advertised post of **Head of Engineering** at the Nottingham University Academy of Science and Technology (NUAST).

NUAST is a centre of Excellence in Science, Engineering and Computing/IT. We are a specialist academy teaching students aged 14-19 years old. Our aim is to ensure that young people who are passionate about Science, Computing or Engineering have opportunities to realise their maximum potential with us. We currently have 296 students and we will grow to our capacity of 750 students during the next few years.

NUAST has recently undertaken consultation to change to an 11-18 year old entry profile following requests from parents and the local authority. This means that it is an exciting time to join NUAST. As the Academy expands and develops, there will be opportunities for teaching staff to develop their professional practice and access middle management and senior leadership roles.

The NUAST staff team is dedicated to ensuring that our strong and caring pastoral system encourages and supports our students to access the excellent specialised facilities and the unique opportunities available at NUAST. NUAST has achieved excellent results and has firmly established a reputation for academic success.

Working at NUAST will be an exciting and challenging chapter in the career of any teacher. Along with the responsibilities associated with the position the successful candidate will be responsible for helping to form the culture, ethos and working practices of the academy at every level.

Securing outstanding teaching and learning is critical to our success and every member of staff will be required to contribute to the development of teaching materials and wider curriculum planning.

I look forward to receiving your application.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Robert White', with a stylized, cursive script.

Robert White

Application Process

If you feel that you could contribute to the students and team at NUASt, we would welcome your application.

All applications need to be submitted online via Vacancy Filler

<https://www.vacancy-filler.co.uk/>

Wherever possible, please provide email addresses for your referees.

Closing date: please ensure your application arrives by 5pm on the closing date of Wednesday 18th April 2018.

Interviews for the role will take place on Thursday 3rd May 2018.

About NUAST

The Academy

NUAST is a 14-19 academy based in Nottingham offering the very best educational opportunities for our students.

With specialist teachers, specialist facilities and the unique opportunity to work with The University of Nottingham and industry partners at KS3, KS4 and KS5. NUAST offers our students specialist STEM teaching and a broad range of subjects that will support their future progress to further study or employment.

Curriculum

Our curriculum balances specialist teaching in Science, Engineering and IT along with all the other core subjects.

At KS4, science is taught as discreet subjects and Engineering and IT is delivered through industry approved and recognised Cambridge National qualifications, our specialist curriculum is designed to give students the very best start in their careers.

NUAST offers Post 16 students a complex and diverse range of curriculum options based around Science, Engineering and IT/Computing. From a full suite of A Levels, through a mix of qualifications, to dedicated BTEC Level 3 Extended Diplomas, NUAST can offer our students a pathway modelled to their needs.

The Academy Day

To ensure that NUAST can offer the broadest set of experiences for each of its learners, the academy operates an extended working day.

Starting at 8.30am, the academy works until 3.00pm with additional after-school study provision available until 4.00pm. The day finishes at 2.15pm on Fridays.

This extended day allows us to deliver our unique curriculum and provides students with the opportunities to access a wide range of enrichment activities.

Pastoral Care

At NUAST student's well-being is of primary importance to us. As a small academy we can offer a high level of care and guidance. All students will have a learning mentor.

Mentors will guide and support students throughout their time at NUAST. In addition all students are offered specialist career advice with the support of our University and Industry partners.

In terms of behaviour, we have a very simple approach. Work hard and be kind.

Industry Partners

From the very start, NUASt has had the support and guidance of some of the biggest industry names in engineering, science and information technology. Their knowledge and understanding of the skills and attributes required to become a future employee in their fields has guided the curriculum and helped shape the facilities.

As students learn and train at NUASt, they will have the opportunity to work with these companies alongside NUASt teaching staff. Students will leave NUASt fully equipped to enter the world of work or higher education with an enviable set of experiences and contacts.

NUASt has many partners, some of which are listed below:

Rolls-Royce Siemens Toshiba Esendex Experian Natgraph Bulwell Precision

Education Partners

In addition, NUASt is sponsored by the University of Nottingham, which provides students with access to world-class research facilities and staff.

The University will provide opportunities to develop academic experiences and knowledge.

Students wishing to pursue degree level courses will be given help and support when applying to university.

Finally, the education provision is delivered by the Nova Academy Trust.

Facilities

Housed in a purpose-built, iconic building, NUASt offers the most advanced GCSE and Post 16 facility for the teaching of science, engineering and computer science in the local area.

Industry standard science, IT and engineering facilities are complemented by a full suite of teaching rooms covering all key English Baccalaureate subjects.

Opened in Autumn 2014, the building is designed to provide our students with all the experiences they will need to enter higher education or industry. The building has been designed as a modern workplace: open, light and attractive with excellent catering, study and outdoor spaces.

NUASt is a remarkable investment in the young people of the East Midlands.

For more information about the academy visit: www.nuast.org



NUAST Job Description
--

JOB TITLE	Head of Engineering & Design
HOURS OF WORK:	Full time
SALARY SCALE:	MPS and UPS pay scales, TLR1B
CONTRACT TYPE:	Permanent

Department Overview

The Engineering department occupies extremely well equipped facilities within our purpose built building. There are currently four full time teaching staff and one part-time technician in the department.

The Engineering department is a key department within the Academy and offers a wide range of subjects and is recognised as being key to the reputation of NUASt with significant interest from both university and local employers. The department has excellent facilities with a full workshop of manual lathes and milling machines, five CNC machines, a dedicated CAD suite and a suite of 3D printers.

At KS4, the department delivers;
GCSE Design Technology
Cambridge National Engineering Design
Cambridge National Engineering Systems
Cambridge National Manufacturing

At KS5, the department delivers;
BTEC Extended Diploma in Engineering
A level Product Design
A level Engineering Design

With this range of qualifications, the Head of Engineering post is busy and the successful candidate must be able to respond to the controlled assessment requirements of these qualifications to ensure effective completion and high attainment.

Job Purpose

As Head of Engineering you are required to contribute to the NUASt's vision of providing a high quality education for its students, by providing: effective and inspirational teaching; dynamic leadership of engineering education; and efficient management of the human and physical resources of the department to achieve departmental objectives.

1. To provide BTEC Engineering, Product Design teaching to A level/Level 3 and Level 2 standard.

2. To manage the delivery of BTEC Engineering, A level Product Design, A level Engineering Design, Cambridge Nationals and GCSE Design Technology.
3. To foster strong uptake of the subject at GCSE, CNAT, BTEC (Level 3) and A level.
4. To stimulate interest and excitement in the subject through experiences beyond the curriculum.
5. To line-manage the Engineering teaching and support staff.

Reports To

Principal (SLT line manager)

Responsible For

Teacher of Engineering (Electronics & Systems)

Teacher of Engineering (Product Design)

Teacher of Art and Design

Teacher of Engineering

Engineering Technician

Specific Responsibilities and Duties

The Head of Engineering will be responsible for the delivery of the following key priorities:

- To lead and inspire the Engineering team of committed staff to achieve excellence for students at GCSE, CNAT, A Level and BTEC Level 3.
- To ensure all our students are able to thrive and engage in both academic and vocational learning to achieve above and beyond their highest potential whilst developing personal and employability skills.
- To teach A level, GCSE, BTEC, CNAT and Key Stage 3 (From Sept 2018) Engineering and Product design.
- To be the BTEC Level 3 Engineering programme leader who has overall responsibility for the effective delivery and assessment of BTEC Engineering.
- To act as BTEC Lead Internal Verifier where you need to ensure that all assessment plans, assignments and assessment decisions have been internally verified and that assessors take appropriate action based on their feedback.
- To manage the resources of the Engineering Department.
- To oversee the work of the Engineering Technician, to whom can be delegated significant responsibility for the upkeep of equipment and the ordering and stocking of resources.
- To maintain departmental development, through keeping abreast with technological development and advising on and recommending further investment in tools and equipment.
- To manage the safety of this potentially high-risk area.
- To foster curiosity, ingenuity, creativity and practical skills amongst the students.
- To foster involvement in enrichment activities beyond the curriculum (such as F1 in school, Green Power car, Design Ventura) involvement in out of school STEM activities.
- To forge links with businesses to support visits, lectures, collaborative projects or other activities.

- To line manage engineering teachers: advising on and monitoring the design and delivery of curricula; providing support and guidance; and reviewing performance in annual appraisals.
- Contribute to whole trust progress boards and support the vision for Engineering teaching across the trust.
- To plan and execute a diverse programme that meets individual learner needs within engineering and product design.
- You will demonstrate good or outstanding performance against the national teaching standards.
- To establish and review departmental aims and objectives, translating these into strategies within a development plan, each year.
- To maintain an up to date Departmental Handbook, containing departmental schemes of work, policies and routines, etc., to be updated each September.
- To co-ordinate and develop the curriculum provision of the department, producing appropriate schemes of work for each course and ensuring smooth progression across the age range for pupils studying the subject.
- To liaise with Curriculum Line Manager on the deployment of members of staff within the school timetable.
- To oversee and monitor the use of the departmental facilities, including equipment, books and accommodation.
- To manage the health and safety of the department, ensuring that all departmental activities are regularly risk assessed and that appropriate records are maintained, liaising with the Health and Safety Officer.
- To manage the departmental budget, allocating and maintaining records of expenditure.
- To manage the departmental examination systems, including making decisions on examination board, submitting entries to the examinations officer, overseeing any coursework requirements and maintaining appropriate records.
- To provide information about pupil performance in public examinations, for SLT, and provide other information concerning pupil progress and the planned intervention where necessary.
- To monitor the work of members of the department, including assignment setting, marking and monitoring of pupil progress.
- To ensure that appropriate cover work is set, in the event of staff absences.
- To chair and record minutes of regular departmental meetings, providing information as required.

You will inspire our students, stakeholders and employer partners by:

- Working with university sponsors effectively to enhance the students learning through the development and delivery of focus projects.
- Understanding national standards within the subject area and ensure that these are followed.
- Using effective target setting systems for all students within Engineering to ensure the highest possible levels of achievement.

- Identifying effective intervention and mentoring strategies for students within Engineering.
- Ensuring that all the work for NUASt follows our vision and values
- Being an outstanding practitioner who inspires students to pursue their career goals.
- Contributing to the NUASt Enrichment programme.
- Undertaking such other duties as are commensurate with the post and which may reasonably be required by the Principal.

You will enhance young people's futures by:

- Teaching students according to their educational needs, including the appropriate setting and marking of work to be carried out by the students.
- Assessing, recording and reporting on the attendance, progress, development and attainment of students whilst keeping electronic records as required.
- Contributing to reports and references relating to individual students.
- Ensuring that ICT, Literacy and Numeracy are part of the teaching and learning experience of students.
- Ensuring a high quality learning experience for students, which meet internal and external quality standards.
- Preparing and regularly updating subject materials.
- Using a variety of delivery methods, which will stimulate learning appropriate to student needs and demands of the syllabus.
- Maintaining discipline in accordance with the NUASt procedures, and to encourage good practice with regard to punctuality, behaviour, standards of work and independent learning.
- Undertaking assessment of students as requested by external examination bodies, departmental and NUASt procedures.
- Marking and grading students work which enables you to give written/verbal and diagnostic feedback.
- Supporting and motivating students to allow them to grow and enhance their own skills in both achieving qualifications and work readiness.
- Ensuring the maximum opportunity for young people to prepare for pathways into further learning, training or employment.
- Supporting partnership events with key stakeholders including students, parents, employers, schools, further and higher education establishments.
- Engaging with employers to develop learner employability skills, ensuring work related learning experiences are at the core of the curriculum.
- Ensuring all students understand the expected standards of behaviour and be prepared to intervene where these standards are not followed.
- Ensuring a safe, secure and healthy environment for students.

You will protect our students by:

- Responding effectively and immediately to safeguarding/child protection concerns raised by staff, pupils or brought to NUASts attention through other means.
- Ensuring that safeguarding policies are followed and communicated effectively.
- Ensuring that the department meets the requirements of all relevant health and safety legislation.

Generic Requirements:

1. It is a requirement of all posts within the Academy that Health and Safety requirements are upheld in the performance of duties
2. All employees of the Academy are required to uphold the Equality and Diversity Policy and the Academy's Code of Conduct.
3. All staff will ensure the safeguarding of young people by the implementation of Child Protection and other safeguarding policies.

This job description is not a complete description of the role, as you are required to undertake any other reasonable duties within the level of responsibility and grading of the post as directed by the Principal.

Person Specification

Factors	Essential	Desirable
Qualifications	<ul style="list-style-type: none"> • Qualified Teacher Status (PGCE or equivalent qualification) • Good Honours degree (First or Second Class) 	<ul style="list-style-type: none"> • Higher professional qualification
Experience	<ul style="list-style-type: none"> • Successful experience of teaching in the subject across the full age range of a secondary school or college • Experience of delivery of level 3 qualifications • Experience of teaching a wide range of abilities • Proven record as a teacher whose pupils reach high standards of learning and achievement 	<ul style="list-style-type: none"> • Current/recent responsibility post within a department • Delivery experience and assessment of BTEC level 3 Engineering • Experience as Internal Verifier or Standards Verifier for BTEC • Experience of delivery of A level qualifications in Product Design or Engineering Design • Ability to plan multiple subject schemes of work • Experience of pastoral/tutor role
Skills/ Knowledge	<ul style="list-style-type: none"> • Excellent knowledge of engineering processes and workshop skills that cover the following; milling, turning, CNC machining, level 3 CAD applications and use of 3D printers • Teaching skills, including effective communication skills, ability to motivate students and staff and the capacity to create good learning environments • A clear understanding of the characteristics of high quality teaching and learning and achievement for all pupils • Knowledge of current issues and recent developments in the curriculum area • Capacity to use ICT as integral part of teaching • Knowledge and understanding of the value added agenda, including levels of progress • Ability to lead initiatives, support the process of change and work effectively in a team • Ability to prioritise, plan and organise • Secure commitment to a clear aim and direction for the subject • Understanding of safeguarding and promoting of welfare of children issues • Understanding of equal opportunities issues and their application to work 	<ul style="list-style-type: none"> • Recent training and experience in use of Autodesk Fusion software or willingness to attend training to quickly build skills to a level 3 standard • Knowledge of Electronics and Process Control Systems • Understanding of particular needs of pupils with SEN • Awareness of factors affecting language and learning across the curriculum • Knowledge/ involvement in other cross curricular initiatives/projects or whole school developments
Personal Qualities	<ul style="list-style-type: none"> • Passion for the subject and students who study it 	<ul style="list-style-type: none"> • A willingness to contribute to

	<ul style="list-style-type: none"> • Passion for maintaining and developing subject knowledge in a fast moving environment • A vision for the development of the department • Ability to lead a committed team of department staff to ensure excellent outcomes • Ability to liaise with industry and HE partners to develop meaningful industry links • Ability to seek out opportunities to expand student knowledge through educational visits and residential activities • Ability to use own initiative • A commitment to the vision of the school • A commitment to inclusive education • Ability to form good working relationships with pupils and staff • High standards and expectations • Ability to use pupil assessment data to raise standards • Outstanding communication skills • Reliability and integrity • A commitment to safeguarding and promoting the welfare of young people 	<p>extra-curricular activities</p> <ul style="list-style-type: none"> • A commitment to personal and professional development
--	--	--

Responsible to:	Principal
Date:	March 2018