

Year 7



Prospectus



“Pupils’ conduct around school and in lessons is good. They are polite and well-mannered.”

Ofsted (June 2017)



Introduction to NUAST

Welcome to Nottingham University Academy of Science and Technology (NUAST).

NUAST opened in September 2014 and is Nottingham's only specialist science, engineering and computing academy. Our academy offers students aged between 11 and 19 the opportunity to study in a purpose-built, fully-equipped, state-of-the-art facility.

Sponsored by the University of Nottingham, NUAST has been developed to bring secondary education, business and academia together in a way that gives our students the very best education and preparation for working life.

With unique links to university departments and local and national business partners, NUAST students have access to a range of enrichment and curriculum opportunities that will prepare them for further study at university or application for modern apprenticeships.

Our working day starts at 8.30am and finishes at 3.45pm Monday-Wednesday, 3.00pm on Thursday and 2.15pm on Friday. Built into the working week are opportunities for supervised study and enrichment activities. To allow extended time for enrichment activity, school finishes at 3.45pm Monday-Wednesday.

Students can join NUAST at the start of Year 7 or Year 10 for GCSE and at the start of Year 12 for A-Level and BTEC/Cambridge National study. You can find out more about NUAST in this prospectus, join us at one of our Open Events or visit us during the working day. To book an appointment, call us or visit our website.

Welcome

I would like to take this opportunity to welcome you to NUASt.

As Principal I am immensely proud of this institution, its students and the exciting journey we have embarked upon since opening in September 2014. Our results at both A-Level and GCSE have shown that our students have performed exceptionally well. All of our Sixth Form students have entered Higher Education, Higher Apprenticeships or employment and GCSE students have joined NUASt in the Sixth Form, moved on to apprenticeships or are following further study.

With highly experienced staff, exceptional facilities and an exciting and unique curriculum, NUASt truly offers the young people of Nottingham a unique opportunity to study a broad and balanced curriculum in a building that has been designed and equipped to allow specialist study in Science, Technology, Engineering and Mathematics (STEM) curriculum areas.


These subjects are the lifeblood of Britain's expanding, high-value innovation economy. Future employment prospects in these areas far outstrip any other sector. At NUASt, we are preparing our students to be the globally competitive, innovative and creative employees of tomorrow.

With so many local and national business partners supporting our work, the NUASt curriculum is enhanced and enriched by their contribution. The advice, guidance and support offered by our partners gives NUASt students an unrivalled, competitive edge whether applying for university places or apprenticeships.

With the generous support of the University of Nottingham complementing the work of local business, NUASt students have access to leading academic facilities and specialist teaching.

At NUASt, every child will succeed.

Robert White
Principal



“Leaders have high aspirations for pupils and a clear vision to support them to succeed.”

Ofsted (June 2017)



SIEMENS

 Rolls-Royce

TOSHIBA
Leading Innovation >>>

 experian.

 Greene
Tweed

SMS
ELECTRONICS

Links with business

Alongside our main partner, the University of Nottingham, NUASt has developed a range of employer partnerships.

These partnerships range from local to multi-national companies who require young people with the academic and high level interpersonal skills that will enable their businesses to thrive.

Our partners are lending support via an employer-led curriculum, which includes workshops, educational visits, professional speakers, mentoring, sponsorship and master classes.

This range of opportunities allows NUASt students to develop the enterprise and employability skills which are needed for entry into university or the world of work.

Our range of employer partners include Siemens, Toshiba, Rolls-Royce, SMS Electronics, Experian, Esendex, MediCity, Greene Tweed, Far Composites, Autodesk and many more.

Links with the University of Nottingham

One of the things that makes studying at NUASt such a unique experience is our partnership with the University of Nottingham.

Throughout the academic year, NUASt students are regular visitors to the University of Nottingham's world-class facilities. These visits provide our students with the opportunity to develop curriculum knowledge and understanding.

The university supports enrichment at NUASt through a programme of events that includes Raising the Grade Conferences, Learning Preferences and Study Skills Sessions, Independent Learning, Career Carousels, UCAS Application Workshops and Transition to University.

Our university partners are currently assisting with the development of a new mentor scheme whereby all NUASt students will benefit from one-to-one support from a dedicated personal mentor. This allows our students to fully understand what they need to do to access degree-level education and raises aspiration across the academy.

Developing STEM Education

At NUASt, we work closely with the local community and share our resources and expertise with all those who can benefit from them. Through our partnership with the University of Nottingham we are leading work locally to inspire students to study and build careers in Science, Technology, Engineering and Mathematics (STEM).

Our students are actively encouraged to act as STEM ambassadors to promote STEM to students across the range of city and county schools. The events will be part of a long-term programme of activities designed to ensure that students from NUASt and the city more widely are aware of the opportunities presented by a career that makes use of the STEM subjects.



**University of
Nottingham**
UK | CHINA | MALAYSIA

“Getting four As means that I got into Oxford—I’m ecstatic! Eventually I would like to be the head of chemical engineering or start my own business.”

Jack Badley (Science student)
Destination: University of Oxford

Achievement

A-Level Achievement 2018

For the third year in a row, students at NUASt have delivered outstanding A-Level and Level 3 qualification results:

54% of entries were graded A*–A grade

86% of entries were graded A*–C grade

100% pass rate at A-Level

Average Technical Subject grade was Distinction* (equivalent to A* at A-Level)

The value-added score (the measure of achievement based against students’ previous performance at GCSE level) is very high at 0.48 (equivalent to students on average being half a grade above their targets), which is one of the best in the city and county of Nottingham and once again positions NUASt as one of the top-performing sixth forms in the East Midlands. Our average outcome at A-Level is grade B.

Students studying vocational courses in Engineering and ICT have achieved remarkable results with the average grade being Distinction*. 94% of students have achieved a Distinction or Distinction* in all of their BTEC qualifications, with these grades being equivalent to an A or A* grade respectively.

80% of our students have managed to get their first choice university course or apprenticeship placement. Top destinations include:

- Biochemistry at University of Oxford
- Law at University of Oxford
- Rolls-Royce Level 4 Apprenticeship
- University of Sheffield—Robotics and Mechatronics
- University of Nottingham—Theoretical Physics
- University of York—Chemistry
- University of Plymouth—Marine technology
- Loughborough University—Chemical engineering

GCSE Achievement 2018

Examination results provide a good indication of how well an academy is serving its students. In 2018, NUASt’s Year 11 students performed to the very highest levels in their GCSE examinations:

53% Maths and English grade 5+

86% Science grades 9–4

35% Science grades 7+

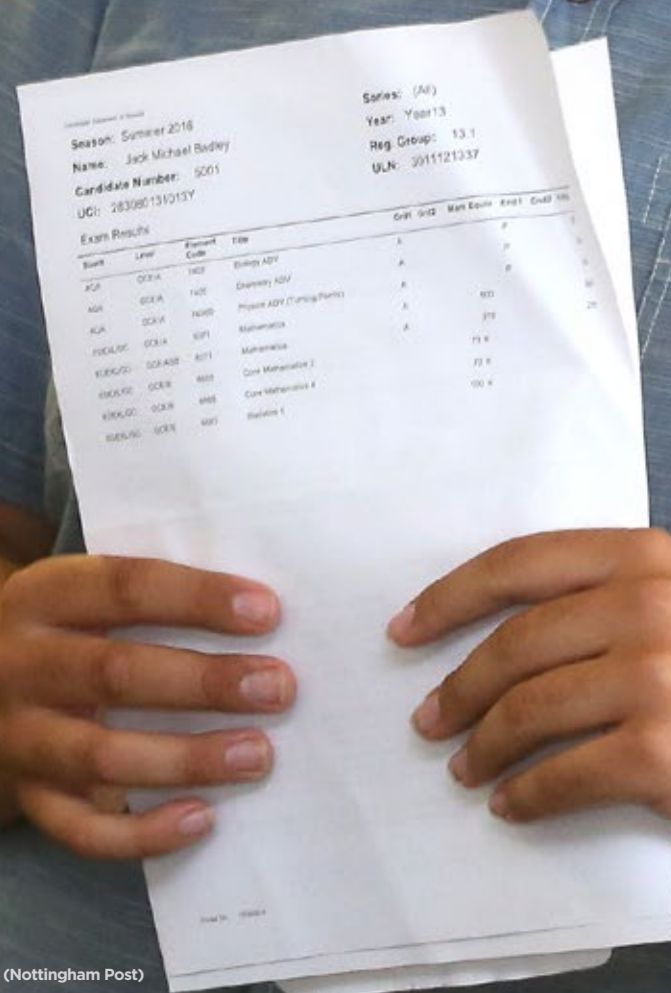
100% pass Cambridge National Engineering grade 4 and above (equivalent)

At NUASt, we believe that examination success allows our students to make the very most of their lives and student achievement is at the heart of everything we do.

With a combined grade 5+ English and Mathematics figure of 53%, NUASt is amongst the highest performing schools in the city.

Results in the academy’s specialist areas were also very impressive, with the Science GCSE subjects achieving an 86% grades 9–4 pass rate and Cambridge National Engineering securing a 100% pass rate.

Other highlights in what has been a hugely successful year included 70% grade 5+ in Mathematics and an amazing 90% grades 9–4 pass rate in Chemistry and Physics.





“The quality of teaching is good. Leaders continually drive further improvements through a range of support and challenge.”

Ofsted (June 2017)

Facilities

ENGINEERING FACILITIES

Mechanical Engineering

- Computer Numerical Control (CNC) suite of machines, including lathes, milling machines and routers
- 3D printers
- Manual engineering production facilities: Bench fitting, heat treatment, welding and brazing facilities and extensive manual production facilities including 13 lathes and three milling machines

Electronic Engineering

- Software for virtual circuit simulation and test
- Printed Circuit Board production and assembly facilities
- Industry-standard test equipment
- LJ create training resources for electronic circuit design

Process Control Engineering

- Factory simulation equipment to develop PLC control programs using industry standard Siemens controllers
- Hydraulic and Pneumatic training systems for development of air and fluid powered control systems
- Transducer and instrumentation control training systems

SCIENCE FACILITIES

- Ten state-of-the-art laboratories of a genuine industrial research standard, with dedicated spaces for Chemistry, Physics, Engineering and Biology
- Specialist equipment for each subject at Key Stage 4 level, including:
 - Dissection apparatus and airflow hoods for biology
 - Distillation and micro-titration equipment for chemistry, along with quick-fit glassware
 - Van der Graaf generator and diode array equipment for physics instruction

ICT FACILITIES

- Over 150 powerful desktop PCs running industry-standard software including Adobe Creative Suite and Autodesk Fusion 360
- Programming facilities including Raspberry Pi single board computers and robotics
- Full teaching suite of Lego Mindstorms and VEX Robotics programmable robotics construction kits
- Programming environment for 'Python' high level general purpose programming language

Transport links

The NUASt building is situated in Dunkirk, close to the University of Nottingham and the Queen's Medical Centre.

Transport access to the building is excellent, with cycle paths and bus/tram stops within easy walking distance.

Buses

The 34 Orange Line bus service departs from Lace Street in Dunkirk every few minutes during the day. Students can also catch the 34, 35 and 36 Orange Line bus services from the Queen's Medical Centre (QMC) bus stop on Derby Road. The Barton Skylink service departs from Abbey Street every 20 minutes during the day.

Trams

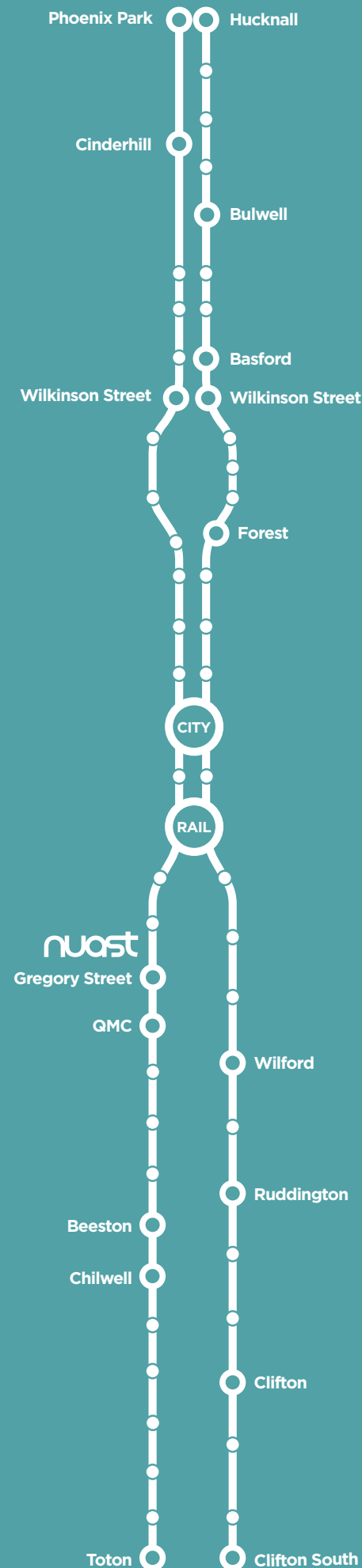
The Nottingham Express Transit (NET) tram stops regularly at the new QMC tram stop opposite NUASt on the Toton Line. This makes NUASt easy to access from Nottingham city centre, Beeston, Basford, Bulwell and Hucknall. By using the tram, journey times to Old Market Square takes only 15 minutes and travelling to the centre of Beeston takes 10 minutes.

Cycling

NUASt provides a bike shelter for those students wishing to cycle.

Route 6 of the Sustrans Cycle Network passes NUASt through the grounds of the QMC and there is a traffic-free cycle route from NUASt to the city centre alongside the Nottingham Canal. There are signposted routes to Beeston and the north of the city via the cycle path alongside the ring road.

See page 19 for a map of cycle routes.





Curriculum

In Years 7 and 8, students study a broad and balanced curriculum that will give access to national curriculum subjects and our unique STEM curriculum.

For the majority of subjects, students are taught in ability groups. This ensures that every child is taught at a level that matches their ability.

During Years 9, 10 and 11, all students follow our STEM curriculum that includes the core subjects of English, Mathematics, Science, a Modern Foreign Language, a Humanities subject and a pathway in Computing or Engineering. This curriculum allows all students to achieve the English Baccalaureate.

A wide range of option subjects including ICT, Design and Technology, Computer Science, Business Studies, Media, Psychology and Sports supplement the core curriculum. We expect all of our students to achieve at least eight passes at grade 5 or above including the English Baccalaureate subjects.

The expectation is that all students will progress to Sixth Form study at NUASt.

Enrichment

Whilst NUASt offers its students the very best in specialist teaching and facilities, our enrichment programme provides unrivalled extra-curricular opportunities and a unique set of skills highly valued by employers.

Enrichment activities include national and international competitions that challenge the skills of young engineers and scientists.

Beyond specific enrichment activities, NUASt's unique links with local and national employers and the University of Nottingham mean that every month there is a range of speakers, educational visits and industry challenges available across the curriculum.

“Pastoral support is strong and pupils appreciate the care and guidance they receive.”

Ofsted (June 2017)

Pastoral care and uniform

NUAST is a small academy and we make sure we know our students and understand their needs as young adults and as learners.

Once you enrol at NUAST you will be contacted by our pastoral team and invited in to meet the Principal. This is the start of our commitment to you as a member of the NUAST community.

In the summer term of Year 6, you will be assigned a Mentor and invited to attend a series of transition events. These events offer our students the chance to get to know each other and become familiar with NUAST prior to commencing full-time studies with us. These events also provide parents/carers with the chance to meet the Head of Year, Mentor and Principal.

At NUAST, we have very high expectations of both our students and staff. We expect students to behave in a mature, considerate and polite manner at all times. To allow all our students to make the most of their learning time, we will always robustly challenge any behaviour that does not meet these expectations.

Being correctly dressed is very important at NUAST. We supply all Year 7s with a free blazer, tie and PE top to help make sure that everyone is able to meet our high standards.

Transition arrangements

We understand that the transition from primary to secondary education can be both an exciting and a challenging process for pupils and parents/carers.

Our transition arrangements are carefully planned to ensure that students are ready for a successful and enjoyable Year 7. Arrangements start in Year 5 and build up to a full academy visit in the summer term of Year 6.

If you have any questions regarding transition at any stage of the process, please do not hesitate to ask. Staff are always available to answer questions at our various events or you can email the academy at any time. As well as visiting our linked primary schools, we regularly run information evenings. Details can be found on our website.

We welcome visits to the academy from prospective parents/carers and students. If you would like to arrange a visit or if you have any questions, please contact the academy by phone or email.

We look forward to welcoming you and your child to NUAST.



Where to find us

Parking spaces at NUAST are limited. We therefore advise visitors to use the free parking at the Dunkirk and Old Lenton Community Centre (available by prior arrangement for NUAST events) or the pay-and-display parking available at the Queen's Medical Centre (QMC).

Disabled parking is available at the front of the NUAST building.

The 34 Orange Line bus service stops at Lace Street in Dunkirk every few minutes during the day, which is only a two-minute walk from NUAST. The 34, 35 and 36 Orange Line bus services stop at the QMC bus stop on Derby Road, which is only a five-minute walk from NUAST.

Also, the Barton Skylink bus service stops at Abbey Street every 20 minutes during the day.

NET trams also stop regularly at the new QMC tram stop opposite NUAST on the Toton Line.

A more detailed map of parking alternatives, public transport and cycle access to NUAST is available on request.

Tomorrow's Scientists and Engineers

MADE IN NUA

nuast

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Science and Technology**

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