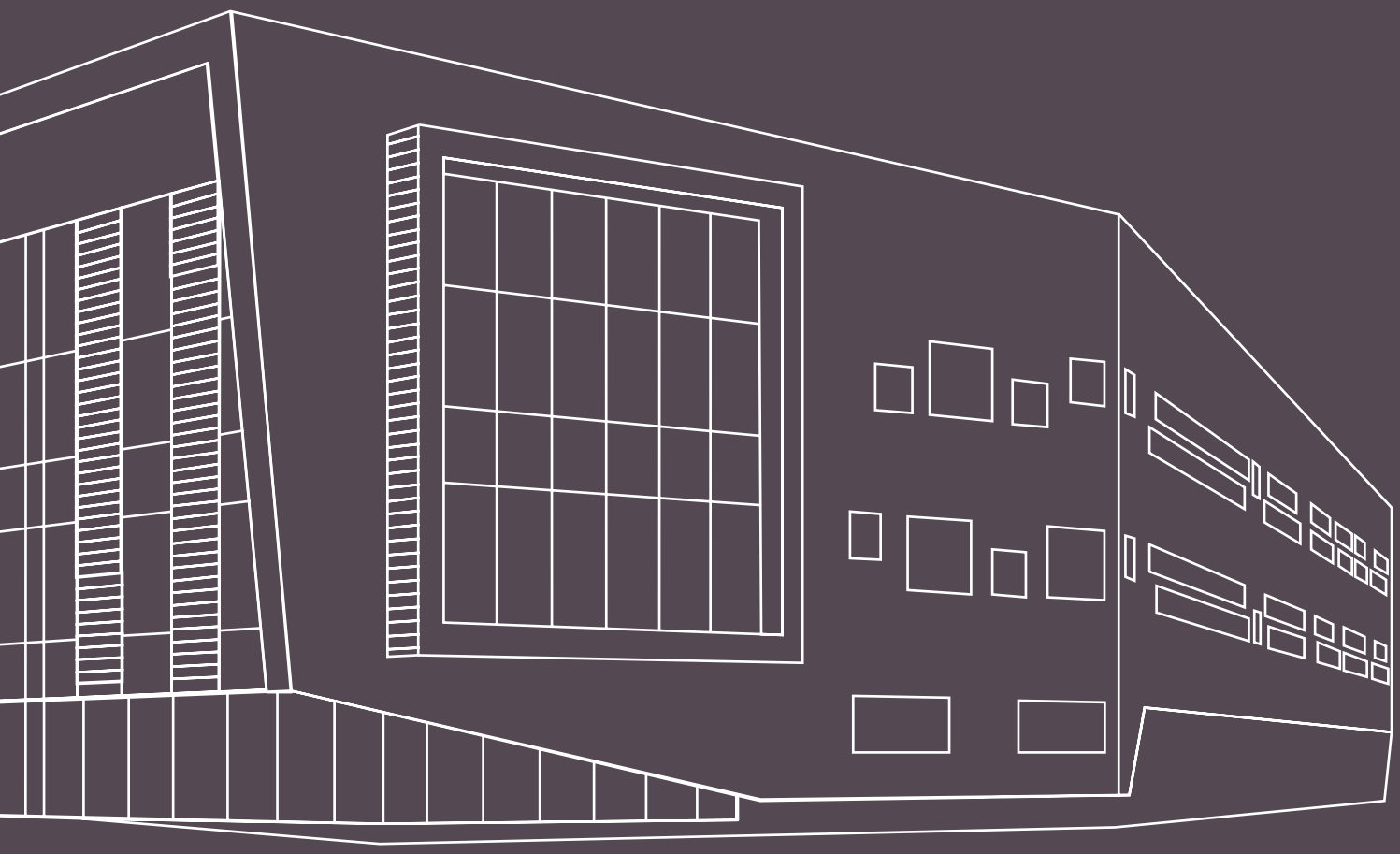
nuast

Nottingham University Academy of Science and Technology



Year 10 Prospectus

2016/17

NOTTINGHAM UNIVERSITY ACADEMY OF SCIENCE AND TECHNOLOGY

With specialist staff and equipment, an extended working week and a unique STEM-based curriculum, NUAST offers Year 10 students a real and exciting alternative to their local secondary school.

Contents

Introduction to NUAST

Welcome to the 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 14 and 19 the chance to study the specialist subject they are passionate about in a purpose-built, fully equipped, state-of-the-art facility.

Sponsored by The University of Nottingham and the Djanogly Learning Trust, NUAST has been developed to bring secondary education, business and academia together in a way that gives its 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 extended working day starts at 8.30am and finishes at 4.30pm* providing students with increased staff contact time over more conventional schools and colleges. Built into the working week are opportunities for independent study, supervised study and enrichment activities from 3.00pm to 4.30pm.

Students can join NUAST at the start of Year 10 for GCSE level study or at the start of Year 12 for A Level and BTEC/Cambridge National study. You can find out more about NUAST and our courses 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.

*2.15pm on Fridays

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 new opportunity to specialise in science, engineering or computing.

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 to the life of the academy. 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

The University of Nottingham
UNITED KINGDOM • CHINA • MALAYSIA

Djanogly Learning Trust

TORCH ACADEMY GATEWAY TRUST

Our Partners

NUAST is sponsored by The University of Nottingham and the Djanogly Learning Trust. This partnership, founded in 2011, was instrumental in bringing NUAST and its facilities to the city of Nottingham.

In September 2014 the Torch Academy Gateway Trust (TAGT) were invited to work with NUAST as educational partners. With experience of transforming Toot Hill School into an 'Outstanding' academy, TAGT has developed the curriculum and oversees the day-to-day operation of NUAST.

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, Prion Cutting Edge 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.

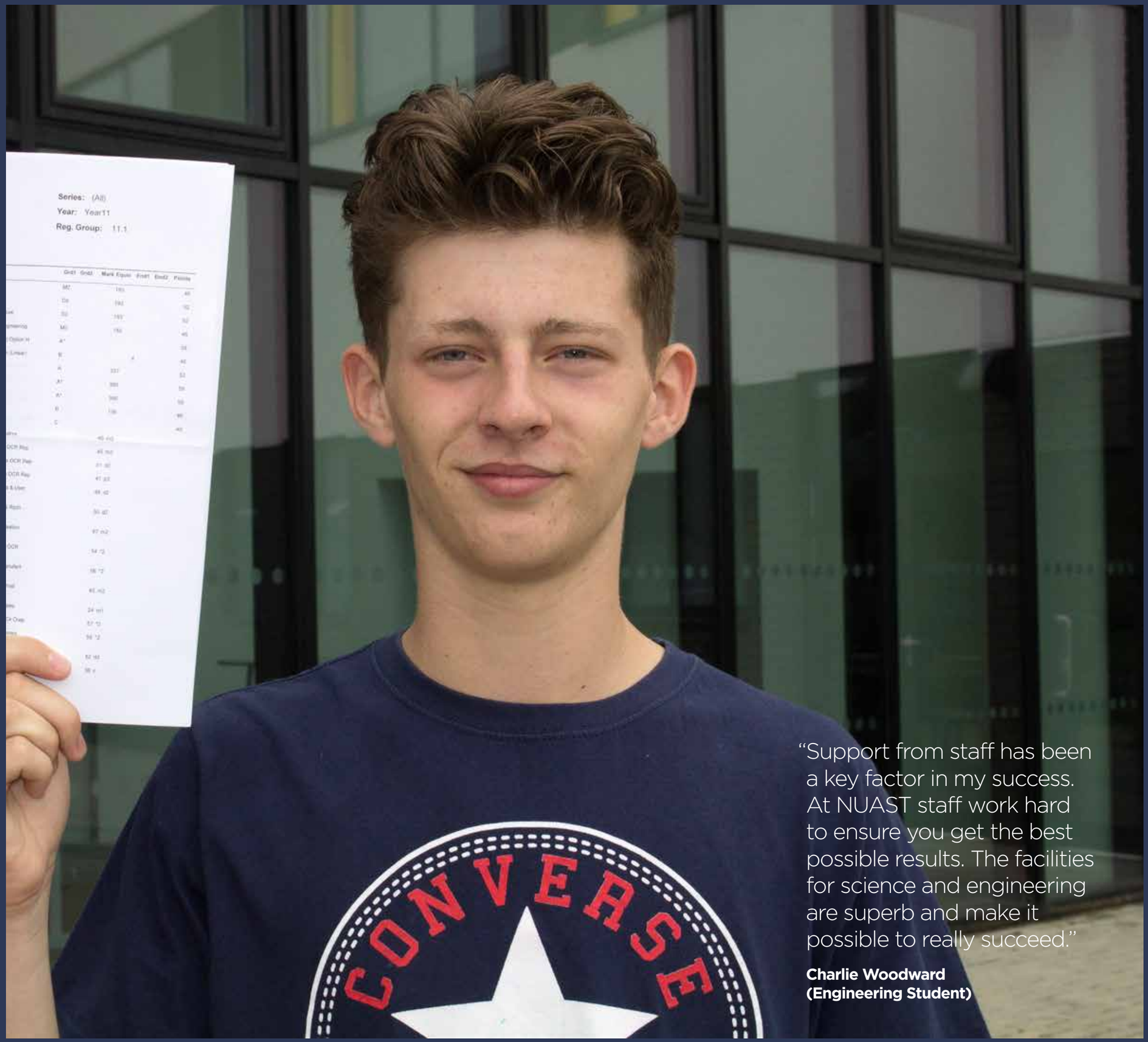
The university supports enrichment at NUAST through a programme of events that includes Raising the Grade Conferences, Learning Preferences and Study Skills Sessions, Independent Learning, Career Carousels, UCAS Application Workshops and Transition to University.

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.

Girls in STEM

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 girls and women to study and build careers in Science, Technology, Engineering and Mathematics (STEM).

NUAST are supporting the Nottingham STEMCity events. 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 girls from NUAST and the city more widely are aware of the opportunities presented by a career that makes use of the STEM subjects.



"Support from staff has been a key factor in my success. At NUAST staff work hard to ensure you get the best possible results. The facilities for science and engineering are superb and make it possible to really succeed."

Charlie Woodward (Engineering Student)

Achievement

78% Science A*–C pass rate
100% Engineering A*–C pass rate
80% IT A*–C pass rate

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

Examination results provide a good indication of how well an academy is serving its students. In 2016 NUAST's Year 11 students performed to the very highest levels in their GCSE and BTEC examinations.

With a combined English and Mathematics figure of 60%, 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 a 78% A*–C pass rate, Engineering securing a 100% A*–C pass rate and IT 80%.

Other highlights in what has been a hugely successful year include 100% A*–C in Languages, 68% A*–C in English and 67% A*–C in Mathematics.

“I can’t believe my results are so good! They are due to the exam preparation and revision at NUAST. I chose NUAST for its IT facilities and I feel that the teaching has been good.”

Charlotte Lehane (IT Student)

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

“I’d only ever seen 3D printers on the Internet and TV up until coming to NUAST. When I found out I was going to get to use them as part of my course, I could hardly contain my excitement!”

Year 10 Student

NUAST offers the most advanced GCSE and Sixth Form facility for the teaching of Science, Engineering and Computer Science in the local area.

Industry-standard facilities and equipment are complemented by a full suite of teaching rooms covering all key English Baccalaureate subjects.

The purpose-built, iconic building has been designed as a modern workplace; open, light and attractive with excellent study, outdoor and catering facilities to provide our students with all the experience they will need to enter higher education or employment.

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

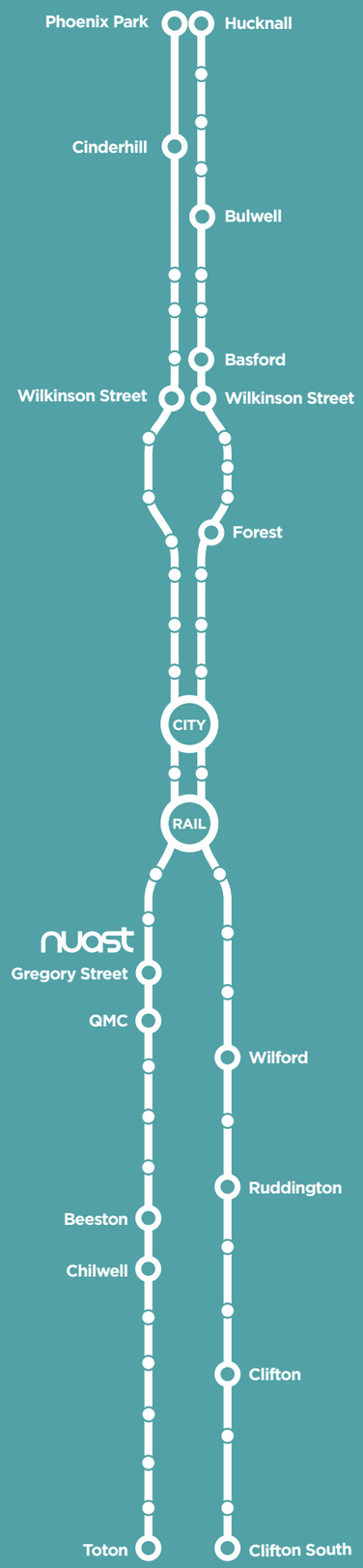
The Nottingham Express Transit (NET) tram stops regularly at the new QMC tram stop opposite NUAST on the Toton Line. This makes NUAST easy to access from Nottingham city centre, Beeston, Basford, Bulwell and Hucknall. By using the tram, journey times to Old Market Square takes only 15 minutes and travelling 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 51 for a map of cycle routes.



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.

Greenpower INSPIRING ENGINEERS

The 24+ formula Greenpower challenge is aimed at young mechanical and electronics engineers aged between 16 and 25 years old.

This formula is all about designing and building an electric car with a standard motor and sets of batteries. There are strict regulations to follow, but this certainly doesn't restrict the creativity required to be competitive.

The season consists of eight Championship rounds, each of 60 minutes duration. Teams must enter at least three events including the Final Round at Rockingham Motor Speedway. The top three results of each team determine their position in the final championship table.

NUAST is investing in two 24+ formula shells and electronic packages allowing two teams of students to enter the competition.

VEX ROBOTICS

The Vex Robotics Competition tasks teams of students with the challenge of designing and building a robot to compete against other teams from around the world in a game-based engineering and coding challenge.

Science, maths, coding and engineering skills are put to the test in the competition ring as NUAST students learn lifelong skills in teamwork, leadership and communications.

Tournaments are held at a regional and national level with the top UK teams going on to compete against the best in the world at the Vex Robotics World Championship each April.

NUAST has invested in a full competition package including a practice tournament ring and all the components required to compete at the highest level.

4x4 IN SCHOOLS technology challenge

The Land Rover 4x4 in Schools Technology Challenge is an international challenge aimed at Year 10 and 11 students.

Using the facilities at NUAST, a team of 4–6 students will work together to design and build a radio controlled 4-wheel-drive (4x4) vehicle. The team must work to set specifications in order to successfully negotiate NUAST's specially designed test track that emulates real life challenges faced by a full scale 4x4 vehicle.

The challenge is an excellent opportunity for young people to work in teams and gain an awareness and understanding of project management.

F1 IN SCHOOLS

F1 in Schools is a multi-disciplinary technology challenge. Teams of students will utilise the state-of-the-art manufacturing facilities at NUAST to design, analyse, manufacture, test and race miniature compressed air powered balsa wood F1 cars.

Teams of 3-6 students are then judged in regional competitions on car speed as well as delivering a verbal presentation on the science and engineering behind their design.

NUAST has invested in a full F1 in Schools 25m test track and timing equipment to ensure our teams are the most competitive they can be.

Image courtesy of the Nottingham Post

"The level of opportunities attracted me to NUAST. As well as all the regular lessons the teachers devote so much time to enrichment. I never thought I'd be building robots and designing and racing miniature formula one cars in school. I was hooked from the beginning!"

Year 10 Student

Introduction to Year 10

Studying in Year 10 and 11 at NUAST is a little different from a traditional secondary school. We know that by Year 10 most students are ready to be given more responsibility and a greater challenge.

Year 10 students at NUAST are treated like adults. From wearing a business suit rather than a uniform, through to giving every student supervised study time during the day, we believe that the more responsibility a student is given, the more they will take responsibility for their own future.

Through our enrichment programme we offer every student the chance to be creative and enterprising. Our enrichment activities demand leadership, imagination and flexibility. They teach our students how to work in a team and approach any challenge with self-confidence.

Our partnerships with local and national businesses, coupled with the support and engagement of The University of Nottingham means that NUAST students will have a unique opportunity to access a whole range of exciting and inspiring learning experiences outside the classroom.

Our curriculum offers every student the chance to study the EBacc curriculum whilst specialising in Science, Engineering or Computing. We don't offer all the subjects you might find in your local secondary school. Instead we provide a suite of complimentary options that will equip our students with a set of qualifications perfect for further study in their chosen field.

Careers Support and Future Destinations

Many NUAST students will want to stay on at NUAST to study A Level or BTEC courses in their specialist subject. With our business and university partners actively involved in all aspects of academy life, NUAST provides the very best support for UCAS applications or interview preparation for higher apprenticeships.

For those students who wish to look for other opportunities at the end of Year 11, NUAST provides personalised careers guidance to help our students find the right apprenticeships or college course.

"NUAST offers a unique experience for anyone interested in Science, Engineering or Computing. We have the expertise of the staff and the high-tech equipment to ensure a fantastic experience at this amazing academy."

Year 10 Engineering Student

Core Curriculum

At NUAST, all our students have the opportunity to study the group of subjects designated by the government as EBacc.

EBacc stands for 'English Baccalaureate' and is described by the government as "the core academic subjects at Key Stage 4". The EBacc is made up of English, mathematics, history or geography, two sciences and a language.

NUAST offers the following subjects at GCSE. We are unique in our commitment to science and all of our students study a third science in addition to the EBacc requirement:

Compulsory

- **Mathematics**
- **English Language**
- **English Literature**
- **Physics**
- **Chemistry**
- **Biology**

Optional

- **iMedia**
- **Computer Science**
- **Product Design**
- **Business Studies**
- **Media Studies**
- **History**
- **Spanish**

For details of specific examination boards, please contact us.

GCSE Science

All NUAST students have the opportunity to study three discreet sciences at KS4 (Year 10 and 11).

NUAST's links to local businesses mean that you will also have the opportunity to visit and work with The University of Nottingham and leading local science employers.

You will study the following sciences:

- **Physics**
- **Chemistry**
- **Biology**
- **Computer Science (optional)**

GCSE Computer Science

Unit 1: Principals of Computer Science

WHAT WILL YOU LEARN?

In this unit you will learn what algorithms are, what they are used for and how they work. You will also be taught to interpret, amend and create algorithms. You will work to gain a solid understanding of binary representation, data representation, data storage and compression, encryption and databases.

In addition, you will develop your knowledge of the components in computer systems, construct truth tables, produce logic statements and read and interpret fragments of assembly code. Computer networks also feature in this course along with the Internet and the World Wide Web. You will also develop your ability to use HTML and CSS to construct web pages.

HOW WILL YOU BE ASSESSED?

One 2 hour written exam, worth 75% of the course.

Unit 2: Practical Programming

WHAT WILL YOU LEARN?

This is a practical 'making task' that enables you to demonstrate your computational techniques using a programming language.

You will deconstruct problems into sub-problems; create original algorithms or work with algorithms produced by others; design, write, test and evaluate programs.

HOW WILL YOU BE ASSESSED?

The assessment will be carried out at a computer over multiple sessions up to a combined duration of 15 hours, under exam conditions, and is worth 25% of the course.

"I wanted to study computing and NUAST was just an unbeatable choice. As well as the high-tech facilities to learn all the aspects of computing, we get to put all of them into practice in the extra-curricular time we have."

Year 10 ICT Student

Cambridge Nationals Pathway

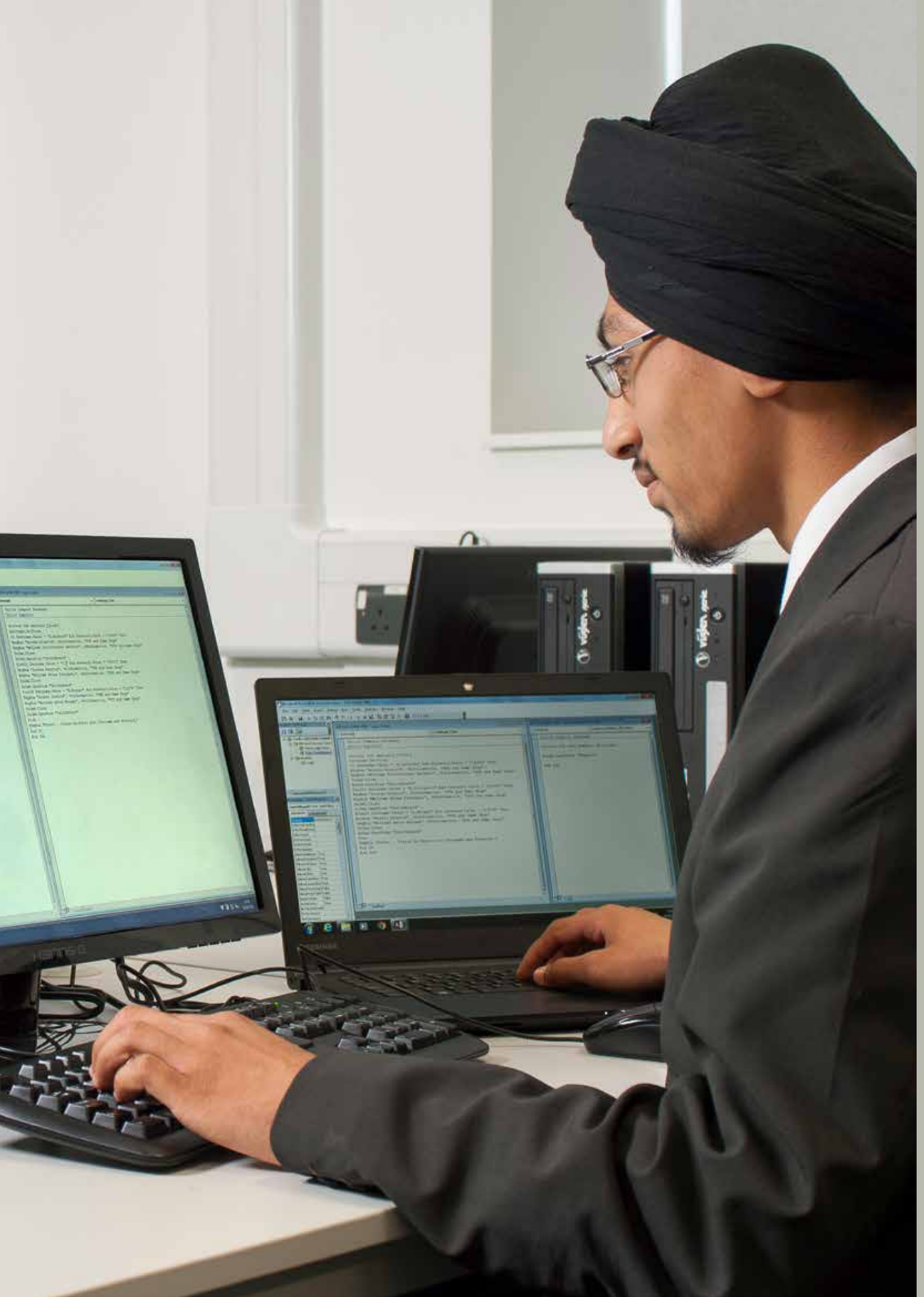
Cambridge National qualifications are specialist work-related qualifications available in a range of sectors. At NUAST you can choose from either Computing or Engineering.

These courses are ideal for students who want to gain hands-on experience in their chosen area.

NUAST's links to local businesses and universities mean that students following these pathways also get the opportunity to work with local employers and The University of Nottingham.

Whether you are an engineer or a software engineer, you can trust that these pathways will give you the knowledge, understanding and skills to study for A Levels, Level 3 BTECs or move to an apprenticeship.

There is more detailed information on the individual Cambridge National pathways on the following pages.



iMedia

Cambridge National Award
Exam Board: OCR

R081: Pre-Production Skills

WHAT WILL YOU LEARN?

This unit will enable you to understand pre-production skills used in the creative and digital media sector. It will develop your understanding of the client brief, time frames, deadlines and preparation techniques that form part of the planning and creation process.

HOW WILL YOU BE ASSESSED?

One 1 hour, 15 minute exam, OCR set and marked.

R082: Creating Digital Graphics

WHAT WILL YOU LEARN?

This unit builds on unit R081 and you will be able to apply the skills, knowledge and understanding gained in that unit and vice versa. Digital graphics feature in many areas of our lives and play a very important part in today's world. The digital media sector relies heavily on these visual stimulants within the products it produces, to communicate messages effectively.

HOW WILL YOU BE ASSESSED?

Centre-assessed task, OCR moderated.

R085: Creating a multi-page website

WHAT WILL YOU LEARN?

This unit builds on units R081 and R082 and you will be able to apply skills, knowledge and understanding gained in those units. Multi-page websites are the basis of Internet content and are therefore used extensively in the creative digital media sector, whether for mobile phones or computers in all their forms.

HOW WILL YOU BE ASSESSED?

Centre-assessed task, OCR moderated.

R082: Creating Digital Graphics

WHAT WILL YOU LEARN?

This unit builds on units R081 and R082 and you will be able to apply the skills, knowledge and understanding gained in those units. Digital animation is used in a wide range of applications in the creative and digital media sector. It can enhance applications, and be used to entertain and inform the viewer.

HOW WILL YOU BE ASSESSED?

Centre-assessed task, OCR moderated.

ICT

Cambridge National Award
Exam Board: OCR

R001: Understanding Computer Systems

WHAT WILL YOU LEARN?

This unit will provide you with the underpinning knowledge and understanding required to use computer systems effectively. You will develop your knowledge and understanding of the systems you use both at home and at school and will explore how these same technologies are used by businesses and organisations.

HOW WILL YOU BE ASSESSED?

One 1 hour exam, OCR set and marked.

R002: Using ICT to Create Business Solutions

WHAT WILL YOU LEARN?

This unit will enable you to develop ICT skills that will equip you to operate effectively in a business environment. This unit complements unit R001. In unit R001 you will study the computer system on which applications software sits and consider the implications of working with data to create content, while in this unit you will work with 'office' applications software to edit and format/create content to meet specified business purposes.

HOW WILL YOU BE ASSESSED?

Centre assessed task, OCR moderated.

R003: Handling Data Using Spreadsheets

WHAT WILL YOU LEARN?

This unit builds on units R001 and R002 and you will be able to apply the skills, knowledge and understanding developed in those units and vice versa. This unit will help you to process and present data into meaningful information that can be used to support the decision-making process in real life scenarios.

HOW WILL YOU BE ASSESSED?

Centre assessed task, OCR moderated.

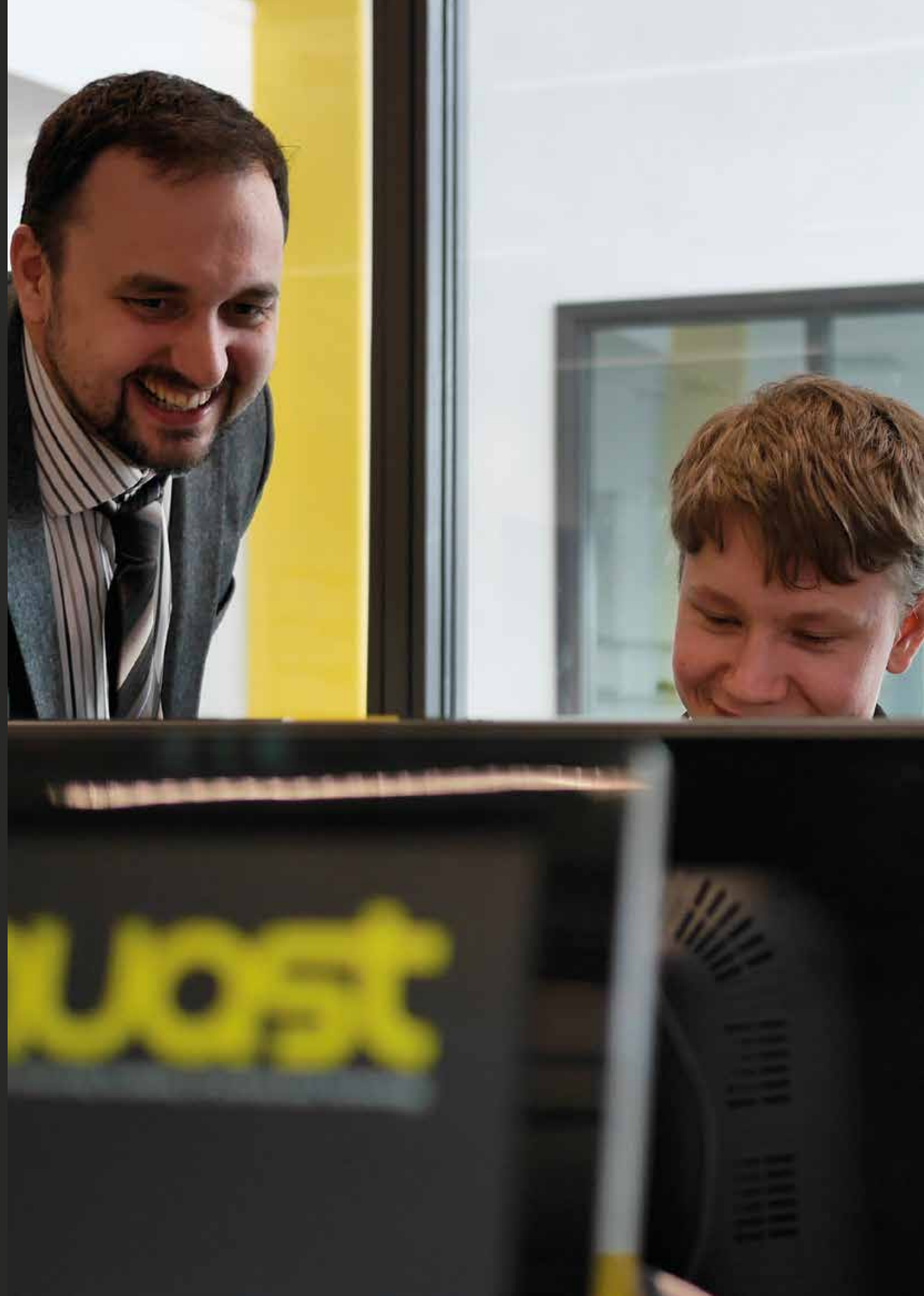
R004: Handling Data Using Databases

WHAT WILL YOU LEARN?

This unit will enable you to gain the necessary additional skills and knowledge to be able to modify an existing database by adding fields and then to further enhance a database by creating new table structures to produce a relational database structure. You will also learn how to test and interrogate a database. You will understand that a database has to be developed to meet the needs of an individual user or organisation.

HOW WILL YOU BE ASSESSED?

Centre assessed task, OCR moderated.



"I'd always wanted to study engineering, but I thought I would have to wait until A Level or university. When I found out I could study it at GCSE level at NUAST, I jumped at the chance. The facilities I saw I could use here alongside studying the course just made it even better."

Year 10 Engineering Student

Engineering Design

Cambridge National Award
Exam Board: OCR

R105: Design Briefs, Design Specifications and User Requirements

WHAT WILL YOU LEARN?

You will learn to understand the purpose of a design brief and how the design specification is developed from this. You will also study the design cycle; how it is applied to a product and then be able to plan, test and evaluate the entire process. You will also be able to understand and apply manufacturing processes, along with suitable material selection.

HOW WILL YOU BE ASSESSED?

One 1 hour exam, externally assessed.

R106: Product Analysis and Research

WHAT WILL YOU LEARN?

You will learn to perform effective product analysis through product assembly and disassembly in order to understand and appreciate the processes and construction of products used. You will gain a thorough, in-depth understanding of what makes good design and what creates successful, useable products.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R107: Developing and Presenting Engineering Designs

WHAT WILL YOU LEARN?

You will learn to produce and develop skills both by hand and through the use of ICT, designs and drawings to present ideas and concepts. You will develop the knowledge and understanding of how to communicate design ideas through hand rendering and computer based techniques.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R108: 3D Design Realisation

WHAT WILL YOU LEARN?

You will learn to apply practical skills to produce a prototype using Computer Aided Design and Computer Aided Manufacturing applications. You will produce a prototype product in the form of a model and test design ideas in a practical context.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

Engineering Manufacture

Cambridge National Award
Exam Board: OCR

R109: Engineering Materials, Processes and Production

WHAT WILL YOU LEARN?

You will develop and further your understanding of engineering materials. Learning about ferrous and non-ferrous metals, alloys, polymers, thermosetting plastics, ceramics, composites, smart materials and new and emerging materials. You will also develop knowledge about their properties and how tools and machines are used to engineer a product.

HOW WILL YOU BE ASSESSED?

One 1 hour exam, externally assessed.

R110: Preparing and Planning for Manufacture

WHAT WILL YOU LEARN?

You will develop knowledge and understanding of the stages and procedures involved during the planning and preparation of manufacturing engineered products. This will involve you using traditional machines and tools, and being able to mark and measure out material and equipment effectively.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R111: Computer-Aided Manufacturing

WHAT WILL YOU LEARN?

Through studying various processes and applications, you will be able to design and make a batch of Computer Numerical Control (CNC) manufactured examples. You will also be able to produce Computer Aided Design (CAD) drawings of the product which supports the manufacturing process.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R112: Quality Control of Engineered Products

WHAT WILL YOU LEARN?

You will develop knowledge and understanding of the techniques and procedures used to ensure the quality of engineered products. Through this you will be able to plan the stages needed to ensure the quality of your own engineered products and also be able to improve the manufacturing process.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

Systems and Control in Engineering

Cambridge National Award
Exam Board: OCR

R105: Design Briefs, Design Specifications and User Requirements

WHAT WILL YOU LEARN?

You will learn to understand the purpose of a design brief and how the design specification is developed from this. You will also study the design cycle; how it is applied to a product and then be able to plan, test and evaluate the entire process. You will also be able to understand and apply manufacturing processes, along with suitable material selection.

HOW WILL YOU BE ASSESSED?

One 1 hour exam, externally assessed.

R106: Product Analysis and Research

WHAT WILL YOU LEARN?

You will learn to perform effective product analysis through product assembly and disassembly in order to understand and appreciate the processes and construction of products used. You will gain a thorough, in-depth understanding of what makes good design and what creates successful, useable products.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R107: Developing and Presenting Engineering Designs

WHAT WILL YOU LEARN?

You will learn to produce and develop skills both by hand and through the use of ICT, designs and drawings to present ideas and concepts.

You will develop the knowledge and understanding of how to communicate design ideas through hand rendering and computer based techniques.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

R108: 3D Design Realisation

WHAT WILL YOU LEARN?

You will learn to apply practical skills to produce a prototype using Computer Aided Design and Computer Aided Manufacturing applications. You will produce a prototype product in the form of a model and test design ideas in a practical context.

HOW WILL YOU BE ASSESSED?

Centre assessed task with submission of an e-Portfolio to OCR.

Pastoral Care and Transition

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 9 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 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.

At NUAST, being correctly dressed is very important. NUAST supplies all Year 10s with a free business suit and tie to help make sure that everyone is able to meet our high standards.

How to Apply

Nottingham City Council Applications

The first round of applications closes on 31 October 2016, but you can still apply as a 'late entry' through the Nottingham City Council scheme after this date.

The term 'late entry' refers to the City Council's own system. NUAST does not consider any applications made during the 2016/17 academic year to be 'late', and once you have received official confirmation of your application from the City Council we will get in contact with you.

If you apply before 31 October 2016, you will be notified by the City Council of the decision on your application by letter in early March.

Applications made to the City Council after 31 October will be notified by letter from the end of May 2017 onwards, depending on when you submitted your application.

Once we have received official confirmation that your application has been successful, we will be in touch to invite you into NUAST to meet staff, fellow students and begin the transition process for your September 2017 start.

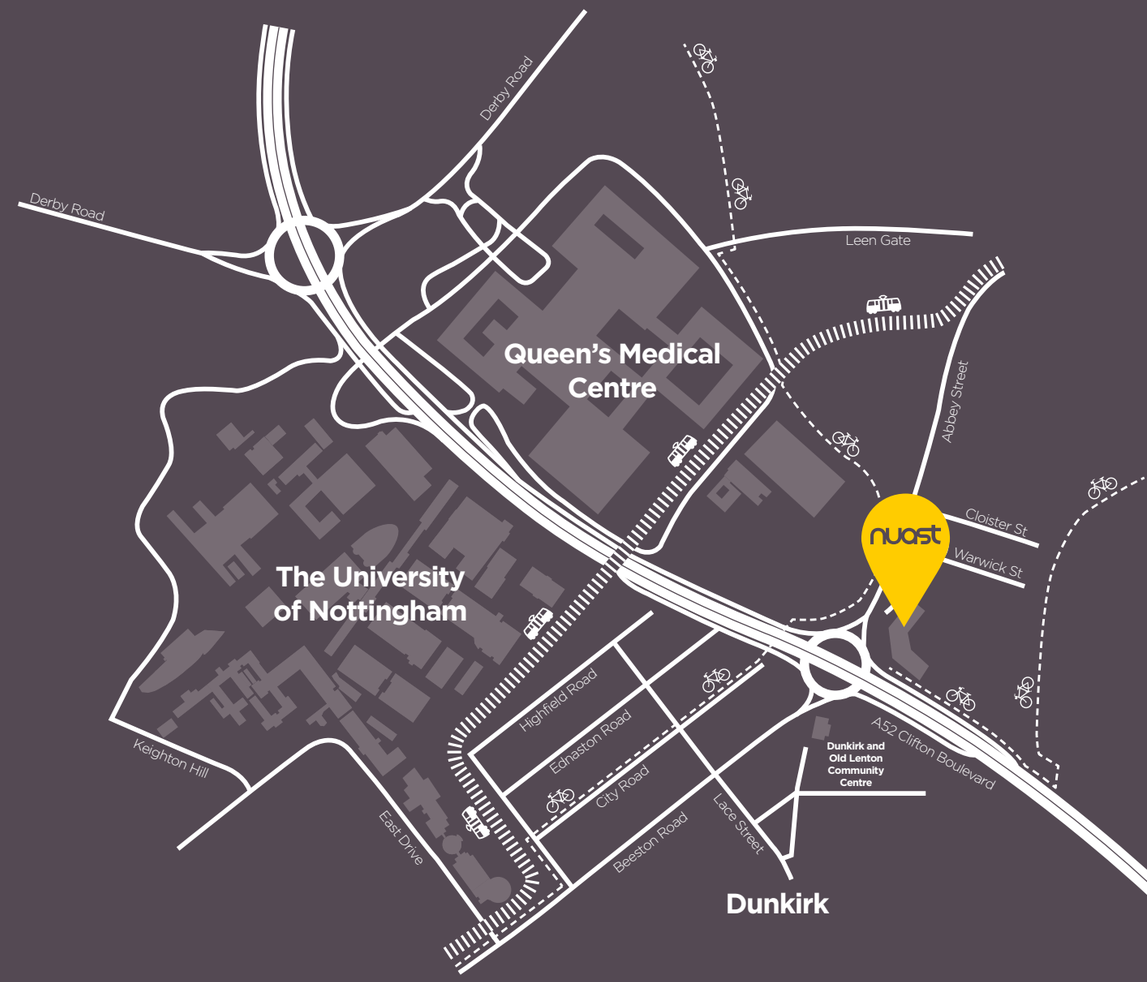
Nottinghamshire County Council Applications

To apply in the first round, your online application through the NCC application website must be completed by 31 October 2016. You can still apply after this date throughout the 2016/17 academic year for entry in September 2017.

To apply after the County Council's 31 October 2016 deadline, we would recommend contacting the County Council Admissions team on 0300 500 8080 in the first instance for guidance on how to apply.

Once we have received official confirmation that your application has been successful, we will be in touch to invite you into NUAST to meet staff, fellow students and begin the transition process for your September 2017 start.

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 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.

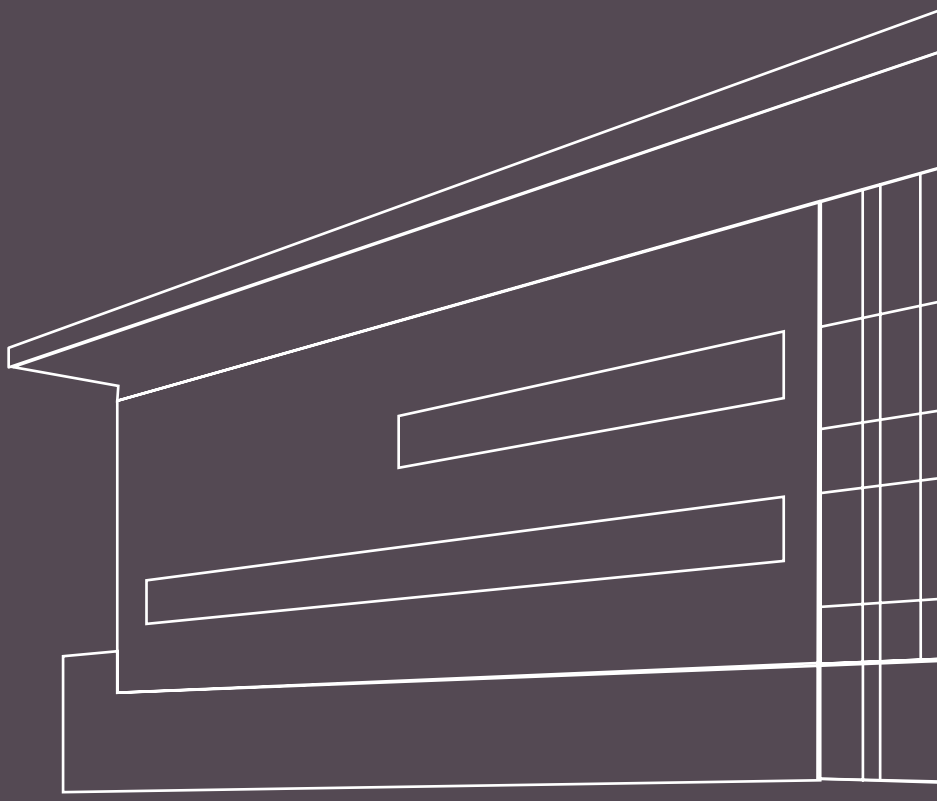
Also, the Barton Skylink bus service stops at Abbey Street every 20 minutes during the day.

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 NUAST



nuast

Nottingham University Academy of Science and Technology

93 Abbey Street
Nottingham
NG7 2PL

0115 859 2040
enquiries@nuast.org.uk
www.nuast.org.uk

Principal: **Robert White** BEd (Hons), PGDE
Executive Principal: **John Tomasevic** BA (Hons) Econ, MEd, NPQH, NLE

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Djanogly Learning Trust

TORCH
ACADEMY GATEWAY TRUST