

INSPIRING TECHNICAL CAREERS



PRINCIPAL'S WELCOME

Born out of the skills gap identified in the Warrington Skills Commission in 2012, which identified a shortage of skilled Engineers in Warrington, UTC Warrington is a dedicated 14-19 academy with specialisms in Science, Engineering and Cyber. With our £10 million iconic building, filled with £1 million of specialist STEM equipment, we deliver a unique, aspirational, technical and academic curriculum, which prepares our students for an exciting career on their doorstep, or beyond.

Working alongside our educational sponsor, Manchester Metropolitan University, we have the benefit of their expertise in supporting students into accessing high-quality Higher Education provision, as well as the technical know-how of their lecturers. Moreover, UTC Warrington supplement academic knowledge and experience with employer master classes,

technical projects and work experience in partnership with over 50 industry partners, including Sellafield Ltd,

Fujitsu, Wood plc, Atkins, Balfour Beatty, STFC and Stanley Engineered Fastenings.

Centrally located in Warrington town centre, with Warrington's railway stations and bus interchange on our doorstep, UTC Warrington is accessible for students far and wide. Through our innovative and forward-thinking STEAM curriculum, which marries creative and entrepreneurial skills alongside Science, Engineering and Cyber, UTC Warrington continues to successfully address the disconnect between education and industry, providing students with a competitive edge.

In 2019, Ofsted inspectors visited UTC Warrington and judged us to be Good in all areas, with high praise for our 6th form study programme, links with business partners and the high status careers that students begin once leaving us.

I look forward to working with students, parents, Manchester Metropolitan University and employers alike, to continue to establish UTC Warrington as outstanding, unique and dynamic educational institution.

LEE BARBER

Principal & Chief Executive



INDUSTRY FACILITIES

Rising six stories high, UTC Warrington has the look and feel of a professional, corporate business environment. The college houses £1 million of specialist science and engineering equipment, purposely chosen to teach students the skills needed for roles in industry.

The ground, first and second floors host the majority of specialist engineering equipment, including a materials testing workshop, a mechanical and aeronautical engineering workshop, a hydraulics and pneumatics workshop and an electronics workshop. Whilst the whole of the third floor is dedicated to delivering the extensive science curriculum in six modern and well equipped laboratories.

Additionally, UTC Warrington benefits from a £540,000 investment in state-of-the-art ICT resources. Each teaching space has the latest interactive computing technology, to further engage and support students.

Through our employer partnership with Fujitsu UTC Warrington was selected to become one of a handful of education establishments across the UK to become a Fujitsu Education Ambassador Hub, which attracted an additional digital investment into our Learning Resource Centre. The Fujitsu branded space is equipped with Fujitsu laptops and tablets for students to use during study periods.

We have also received £20,000 of funding from The Local Enterprise Partnership to develop a new Cyber hub for our computing and computer science students.

FOOD

Our in-house chef and catering team serve tasty and affordable food in our top floor American diner themed catering space, alongside our coffee shop - The Power Station on the third floor and grab and go deli, providing students with plenty of options for lunch and break times.



EMPLOYER PARTNERS

We are supported by a large number of employer partners who are all dedicated to ensuring UTC Warrington provides the very best opportunities to its students.

OUR EMPLOYER PARTNERS:

- Make sure the curriculum gives students a deep and practical understanding of the world of work, as well as the skills and qualifications they need.
- Develop and lead projects that challenge students' technical and creative thinking.
- Give students high-quality work experience that is relevant to industry.
- Support and mentor students, guiding them on career routes and options.
- Deliver guest lectures and masterclasses, and provide access to their state-of-the-art facilities.

Employer partners are a fundamental aspect of life at UTC Warrington, by supporting our students to relate their classroom learning to the real world. The skills and experience gained by students engaging with employers help to set them apart from their peers when applying for university, an apprenticeship or employment. Additionally, working on real life projects improves students' levels of understanding of the subjects they study.

MEET OUR EMPLOYER PARTNERS:



SPECIALISING IN ENGINEERING

Course: BTEC Level 3 Engineering

Exam Board: Edexcel

Course Length: 2 years

Our Engineering Pathway offers students an excellent grounding in the knowledge and experience of fundamental Engineering principles that provides students that chance to explore mechanical, electrical and manufacturing disciplines, developing students analytical and problem solving skills.

Students have access to expert teachers and industry standard equipment that will prepare them for a variety of engineering careers. Students will graduate from the course with a high level understanding of engineering design, having learnt how to apply maths and physics in an engineering environment.

CAREER PROGRESSION:

Students who gain a BTEC Extended Diploma in Engineering are held in high regard by various engineering companies and apprenticeship providers as they will have both good theoretical knowledge and evidence of developing practical skills. The course incorporates two Mathematics units, enabling students to progress into studying Engineering at university. This subject can lead to careers in: Mechanical Engineer, Electrical Engineer, Electronic Engineer, Chemical Engineer, Aeronautical Engineer, General Engineering, CAD Technician, Sports Engineering Designer and Process Engineer.

MODULE CONTENT INCLUDES:

- Engineering Principles
- Delivery of Engineering Principles Safely as a Team
- Engineering Product Design & Manufacture
- Applied Commercial & Quality Principles
- Specialist Engineering Project
- Microcontroller Systems for Engineers
- Calculus to Solve Engineering Problems
- Computer Aided Design
- Hydraulics & Pneumatics
- Electronic Printed Circuit Board Design & Manufacture
- Non Metallic Materials
- Maintenance of Mechanical Systems
- Metallic Materials
- Additive Manufacturing Processes
- Electrical Power Distribution



Kane Delooze

Studying Aeronautical Engineering at
The University of Southampton



Nihad Mahmoud

Studying Mechanical Engineering at
Manchester Metropolitan University

SPECIALISING IN CIVIL ENGINEERING

Course: BTEC Level 3 Civil Engineering

Exam Board: Edexcel

Course Length: 2 years

Civil Engineering is everything you see that's been built around us. Our Built Environment Pathway provides students with a varied and challenging experience which will couple students creativity with an understanding of technical engineering topics.

MODULE CONTENT INCLUDES:

- Construction Principles
- Construction Design
- Tendering & Estimating
- Construction Technology
- Health & Safety in Construction
- Graphical Detailing in Construction
- Building Regulations and Control in Construction
- Management of a Construction Project
- Site Engineering for Construction
- Measurement Techniques in Construction
- Further Mathematics for Construction
- Work Experience in the Construction Sector
- Construction in Civil Engineering
- Public Health Engineering
- Highway Construction and Maintenance in Civil Engineering

The course provides emerging civil engineers the opportunity to build a foundation of knowledge that will set them up for a career within the sector. Students will learn about structures, sustainability and the built environment and how to manage projects.

CAREER PROGRESSION:

After completing this course there are a number of options available for you; depending on your final grade you could move onto a higher education course including a HNC in Civil Engineering, a HND in Civil Engineering, a Higher Apprenticeship or progress to university. Employers seek graduates who are commercially aware and capable of working well within a team environment.



SPECIALISING IN CYBER

Course: BTEC Level 3 Computing

Exam Board: Edexcel

Course Length: 2 years

Computer Science is radically changing the way in which we experience our world. Our Cyber Pathway is a stimulating and challenging programme of study that equips students with the confidence to successfully contribute to our digital society.

Students will gain first-hand knowledge of the modern cyber world from our employer partners and practical experience of the latest technologies.

The UK Cyber Security Market is regarded as the largest in Europe and an estimated 4 million more skilled workers are needed to enter the industry.

CAREER PROGRESSION:

Students who gain a BTEC Extended Diploma in Computing are generally well regarded by companies and apprenticeship providers as they will have both good theoretical knowledge and evidence of developing practical skills. If the course is combined with an A-Level in Mathematics, students can progress into studying Computer Science at university. This subject can lead to careers in: Cyber Security, Software Engineering, Games Development, IT Administrator, Project Management, Robotics.

MODULE CONTENT INCLUDES:

- Principles of Computer Science
- Fundamentals of Computer Systems
- IT Systems, Security and Encryption
- Business Applications of Social Media
- The Impact of Computing
- Relational Database Development
- Planning and Management of Computing Projects
- Software Design and Development Projects
- Object Oriented Programming
- Computer Networking
- Virtualisation
- Systems Analysis and Design
- Digital Graphics and Animation



SPECIALISING IN SCIENCE

Course: BTEC Level 3 Applied Science

Exam Board: Edexcel

Course Length: 2 years

More employers are looking for well qualified people to work within the fields of science, technology, engineering and maths. Students will gain first-hand knowledge of the modern scientific concepts and will develop a range of practical skills and theoretical knowledge in the areas of Chemical, Biochemical and Microbiological Laboratory Techniques, Genetics, Physiology and Applied Chemistry. cyber world from our employer partners and practical experience of the latest technologies.

MODULE CONTENT INCLUDES:

- Principles and Applications of Science 1
- Practical Scientific Procedures and Techniques
- Science Investigation Skills
- Laboratory Techniques and their Application
- Principles and Applications of Science 2
- Contemporary Issues in Science
- Physiology of Human Body Systems
- Electrical Circuits and their Application
- Microbiology and Microbiological Techniques
- Biomedical Science
- Materials Science
- Forensic Evidence, Collection and Analysis

The course provides students the chance to investigate biomedical, material and forensic sciences. Working closely with our university sponsor, MMU, the course is taught in real-life context with access to state-of-the-art laboratories to conduct experiments.

CAREER PROGRESSION:

Students who gain a BTEC Extended Diploma in Applied Science are generally well regarded by companies and apprenticeship providers as they will have both good theoretical knowledge and evidence of developing practical skills. The course also provides a clear pathway to studying Science at university and can often be combined with an A-Level in Mathematics to strengthen these applications. This subject can lead to careers in: Laboratory Scientist, Forensic Science, Biomedical Science, Paramedic, Biomedical Technician.



ALUMNI

MONEKA DUFFY

**Mechanical Design Degree Apprentice,
Sellafield Ltd**

“During my time at the UTC, I’ve had the chance to develop my skills in technical design and now I can pursue my interest in engineering with a leading company.

I gained work experience with Airbus whilst at the UTC and this has helped me understand the concepts in my aeronautical engineering qualification and gave me the determination to secure this apprenticeship.”

GEORGE GARNER

**Project Controls Apprentice,
Cavendish Nuclear**

“Through studying at UTC Warrington, I’ve had the chance to develop my technical skills in an engineering environment and focus on pursuing my interest in project controls. Gaining work experience whilst studying for this BTEC Engineering qualification gave me the determination to secure an apprenticeship after college.

I am excited to start my position at Cavendish Nuclear as a Project Controls Apprentice. It’s going to provide me with brand new opportunities and I’m really looking forward to becoming a STEM ambassador with the company so that I can inspire the UTC’s future students.”

SUCCESS

- 50% of UTC leavers began STEM degrees in 2019;
- 38% of UTC leavers secured high status higher or degree apprenticeships in STEM in 2019 (compared to 5% nationally);
- BTEC Success - 100% pass rate
- Average Grade - Distinction* Distinction



**“STUDENTS IN THE SIXTH FORM
APPRECIATE THEIR DISTINCT,
SEPARATE LEARNING ENVIRONMENT”
- OFSTED**



CAREER-READINESS

Employer engagement is an essential part of the UTC Warrington model and the experience gained when working with our employer partners will be invaluable both in your studies and in the future when you apply for a place at university, for an apprenticeship or apply for a job.

The experience gained working with small, medium and large organisations will help make you stand out from the crowd.

Year 12 and 13 students will spend time on work placements during their time at UTC Warrington. Work placements will vary depending on a student's programme of study and industry areas of interest. The experience you gain will assist you in gaining a better understanding of the theoretical side of your studies when you are in college. You will also gain a good understanding of the vast number of opportunities available within the STEM sectors, whilst developing a vision of what your future career could look like.

In addition to work placements our employer partners provide students with technical projects, deliver masterclasses in the subject specialist areas, host workshops, mentor students and provide unique opportunities e.g. trips to visit their specialist facilities.

Our employer partners have committed to working with students to give them the best possible work experience within their specialist areas of engineering, the built environment and cyber. They understand that our students are their future workforce, so they want them to be the best.



LIFE AT UTCW

Enrichment is an essential part of the curriculum at UTC Warrington, as it an opportunity for students to engage with each other and staff in an environment outside of the classroom. We have developed a varied enrichment programme designed to stretch and challenge our students and further develop their PiXL Edge skills - Leadership, Organisation, Communication, Initiative and Resilience.

STUDENTS CAN TAKE PART IN ACTIVITIES SUCH AS:

- Duke of Edinburgh Award
- Combined Cadet Force (CCF)
- National Citizen Service (NCS)
- Young Enterprise
- Sports Coaching
- Green Kart Racing
- Programming and Coding
- Boxing and Fitness
- Engineering Skills
- Robotics
- STEM Club
- Running Club
- Student Leadership Team

NATIONAL CITIZEN SERVICE

Partnering with Warrington Youth Club, all Year 12 students take part in the NCS programme at the start of the year. The programme, including a residential trip away, gives students the chance to build on their teamwork skills, raising money for local social action projects and charities.

COMBINED CADET FORCE

Our CCF group is open to all students to join. It's a chance for students to break out of the classroom and strengthen their skills in leadership, organisation, resilience, initiative and communication. Students meet every Wednesday afternoon and get the opportunity to go away on regular residential trips. The cadets are supported by 75 Engineers, a local army reserve unit based locally at Peninsular Barracks.



TOP REASONS TO JOIN UTCW

GUARANTEED JOB & UNIVERSITY PLACES:

We work closely with our employers partners to ensure we shape their future talent pipeline. Through employer engagement activities, they have the opportunity to meet and hand pick potential candidates. Students who want to go to university benefit from our links with MMU. They are able to offer our students places on their science and engineering courses.

EMPLOYER SCHOLARSHIPS:

Our network of employer partners are seeking to sponsor UTC students during their time at the college. They will mentor selected students, offer work placements and site visits, and support them into an apprenticeship role after they leave Year 13.

INDUSTRY EXPERIENCE:

Through our employer engagement activities students get first-hand industry experience. We actively encourage students to engage in business mentoring, workplace visits, masterclasses and participate in a minimum of two weeks work experience.

PROFESSIONAL AND PERSONAL DEVELOPMENT:

We offer a professional environment for students to flourish. Students wear business dress to prepare them for the workplace and are expected to take advantage of private study facilities to enhance their learning experience. We offer a wide range of enrichment, cultural trips, residential and other qualifications that build on developing softer character skills and providing an excellent college experience for students.

HIGH QUALITY TEACHING:

Our teachers are experts at what they do and care passionately about their subject; many of whom have come from industry. Small class sizes create the perfect learning environment for our students meaning they have access to high quality teaching without distraction.

TRANSPORT:

We have fantastic transport links across Warrington and the North West. For Sixth Form students who live over three miles away there is support with transport fares to and from college. We also provide a number of bus routes exclusively for UTC students.

STRONG ADVICE & GUIDANCE:

Our staff are fully committed to offering careers, advice and guidance to all students, supporting them with CV writing, application processes and interview techniques. Each student has a Personal Tutor who will support them throughout their journey and we boast a large pastoral team for any student who needs extra support.



HOW TO APPLY

UTC Warrington is open to applications from students from across Warrington and the surrounding areas.

APPLY ONLINE AT WWW.UTCW.CO.UK

Once you have applied, you will be invited to a 1-1 meeting with the Principal & Chief Executive to discuss options and joining the UTC.

Once you have accepted your place, you will be invited to attend Enrolment Day to present your exam certificates and formally join the college.

If you have any questions, please email: ADMISSIONS@UTCW.CO.UK





A 14-19 SCIENCE & ENGINEERING
ACADEMY

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