

T LEVEL ENGINEERING, MANUFACTURING, PROCESSING & CONTROL: MACHINING & TOOLMAKING TECHNOLOGIES

Subject Area
Student Type
Study Mode

Engineering
Students aged 16-18
Full Time

What is the course about?

Our exciting new T Level Engineering, Manufacturing, Processing & Control: Machining & Toolmaking Technologies is suitable for anyone aspiring to work in the engineering and manufacturing industries. Equivalent to three A levels, this course is delivered through a combination of classroom-based study and within an industry setting.

Delivered by expert teachers and industry specialists, this programme will broaden your options as you will cover a variety of topics and specialist areas. This means that when it comes to employment, you'll have the knowledge and skills to go wherever your ambitions take you.

Topics covered will include:

- Working within the engineering and manufacturing sectors
- Engineering and manufacturing past, present, and future
- Engineering representations
- Essential mathematics for engineering and manufacturing
- Essential science for engineering and manufacturing
- Materials and their properties
- Mechanical principles
- Electrical and electronic principles
- Mechatronics
- Engineering and manufacturing control systems
- Quality management
- Health and safety principles and coverage
- Business, commercial and financial awareness
- Professional responsibilities, attitudes, and behaviours
- Stock and asset management
- Continuous improvement
- Project and programme management.

You will also focus on an developing the skills for an occupational specialism: Machining & Toolmaking Technologies.

Why should I choose the course?

This T Level course is delivered over two years and has been designed in collaboration with our expert teaching team, industry links and employers. Through a blend of classroom working and an extended industry placement, you will be fully prepared for a highly successful career within the rewarding mechanical engineering industry.

You will develop knowledge and understanding of concepts, theories and principles, supporting practical application of skills, both within the classroom setting and the workplace. This will ensure that you are fully-equipped for your next steps.



**Warrington
& Vale Royal
College**

Warrington Campus
Winwick Rd, Warrington WA2 8QA

 wvr.ac.uk

 01925 494 494

Winsford campus
Weaver St, Winsford CW7 4AH

 learner.services@wvr.ac.uk

What will I learn?

You will develop skills and knowledge in a wide range of exciting topics and occupational specialisms including:

- **Analysing and interpreting** - Evaluate and confirm the brief with reference to context, objectives and constraints (eg requirements, resources, precedents, technical issues, costs, health and safety, regulations, possibilities).
- **Planning and preparation** - Propose and plan key activities, stages, methods, processes, techniques, documentation, resources (including types of tools and equipment) and risk assessments.
- **Developing responses** - Apply engineering and manufacturing processes to achieve specific objectives and to produce quality outcomes, using relevant techniques and technology, within limits of own authority.
- **Evaluating and quality assuring** - Carry out investigations, generate proposals and options, identify standard components and systems at relevant stages to gather and evaluate relevant evidence and data, and to confirm the suitability of plans, processes, actions and outcomes (including quality control and quality assurance activities)
- **Communication and presentation** - Record, report, communicate and present plans, proposals, processes, issues, risks and outcomes to both technical and non-technical audiences, across a range of suitable formats and media (e.g. diagrams; physical and digital records; presentations)

What will the course lead on to?

This T Level will fully prepare you for employment and a dynamic career. Due to the broad range of topics covered on this, you'll be equipped for a career in a variety of settings. You could work as:

- Fabricator
- Mechanical Fitter
- Maintenance Engineer

You can also use this T Level to progress to a related higher apprenticeship or degree-level course.

Are there any links with industry and university?

Our engineering department are exceptionally proud to work with a range of high-profile employers to enhance students' college experience, including Sellafield, Rolls Royce and AstraZeneca, to name but a few.

You will also complete an extended industry placement, equivalent to 315 hours, over two years. Whilst it is beneficial for you to self-source your own industry placement, you will have the support of our dedicated Industry Placement Team to provide in finding relevant placements.

What support is available?

You will be allocated a progress coach who will provide you with support to help you succeed on your study programme and progress on to your chosen career or progression path. We have a team of staff dedicated to providing learning support if required, as well as a welfare team that is on hand to offer guidance, support and help when needed. Additionally, eligible students can access a wide range of finance and funding support to help them during their time at college.

Click here for learning support: <https://wvr.ac.uk/college-life/learning-support>

Click here for finance support: <https://wvr.ac.uk/college-life/financial-support>



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Why should I choose to study the course at Warrington & Vale Royal College?

This course is delivered by our expert teachers and designed in close collaboration with industry and employers, ensuring that you are developing the in-demand skills needed to enter the world of work. It is delivered within our state-of-the-art Advanced Manufacturing & Engineering Training (AMET) Academy, which houses fully-equipped workshops and all of the latest industry standard tools and equipment.

The unique blend of classroom, workshop and industry placement will fully prepare you for your next steps, whether that be skilled employment, university or a higher apprenticeship.

What are the entry requirements?

You will need a minimum of five GCSEs at grade 4 or above, including English and maths, or you will have needed to have successfully completed a Level 2 course and have GCSE English and maths at grade 4 or above.

Are there any additional costs associated with the course?

PPE – Steel Toe Cap Boots, Trousers and T shirt.



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