HoW COLLEGE

T-LEVELS

THE NEXT LEVEL QUALIFICATION

T LEVEL IN DESIGN AND DEVELOPMENT FOR ENGINEERING AND MANUFACTURING

HEART OF WORCESTERSHIRE COLLEGE

T LEVEL IN DESIGN AND DEVELOPMENT FOR ENGINEERING AND MANUFACTURING

Course Overview

The engineering and manufacturing sector is one of the UK's broadest. It encompasses a range of disciplines and employs 18% of the UK's working population. The UK Manufacturing sector itself brings £31 Billion into the UK economy each year and is the 9th largest manufacturing country in the World. However, the engineering sector is experiencing a skills shortage meaning opportunities for young people within this sector are broad and varied.

T Levels are two-year technical qualifications which have been developed in collaboration with employers and businesses to meet the needs of different industries. Learners will gain an understanding of the engineering industry and the sector and must complete a minimum 45 day industry placement as part of the qualification with a maximum of two employers. T Levels are equivalent to three A-levels and have UCAS tariff points.

The T Level in Design and Development for Engineering and Manufacturing is split into three main sections:

1. **Technical Qualification –** this is the main classroom-based element. Students will learn about their chosen sectors through a curriculum designed by employers and developed by an awarding organisation and will cover topics such as:

- Customer and client requirements.
- Principles of design.
- Design processes.
- Communication in design.

The **core content** is the building blocks of knowledge and skills that will give a learner a broad understanding of the industry and job roles. At the same time, it will develop the core skills they will need to apply when working within the industry. They are:

* **Planning and preparation In relation to design and development engineering** this may be evidenced through: - Interpreting and confirming project requirements, Planning and scoping project parameters (e.g. timescales, resources, costs) - Developing project plans.

- **Communication In relation to design and development engineering** this may be evidenced through: - Interpreting, using and producing engineering representations and drawings following graphical language and industry conventions - Interpreting and using technical information and media - Communicating with technical and non-technical audiences using technology.
- **Developing proposals and concepts In relation to design and development engineering** this may be evidenced through: - Designing proposals to meet set requirements - Developing, modelling and revising concepts.
- **Evaluation In relation to design and development engineering** this may be evidenced through: - Carrying out tests, evaluation and analysis.

Core skills will be assessed by use of an employer - based project.

A learner will have the choice of studying one standalone **Occupational Specialism** as listed below:

- Mechanical engineering
- Electrical and electronic engineering

Occupational specialisms develop the knowledge, skills and behaviours necessary to achieve threshold competence in an occupation. Threshold competence is defined as when a learner's attainment against the knowledge, skills and behaviours is of a standard for them to enter the occupation and industry. They must also demonstrate the ability to achieve occupational competence over time with the correct support and training.

1. **Industry placement -** this runs for a minimum of 315 hours (45 days) overall and will give students practical insights into their sector and an opportunity to embed the knowledge and skills learned in the classroom. It is worth 20% of the qualification and must be completed successfully.
2. **English, maths and digital provision -** These are built into the classroom-based element of the T Level, meaning students will be given a solid foundation of transferable skills.

Entry requirements

At least 5 GCSEs at grade 6 or above including maths and English.

Methods of assessment

Students will sit externally set exams at the end of each academic year to test their understanding of the subject. They will also undertake a skill-assessment to demonstrate their competency skills and an Employer set project which will take place in controlled conditions. Industry Placement must also be successfully completed. Students who complete their T Level will receive an overall grade of pass, merit, distinction or distinction*.

Progression after T Levels

This technical qualification focuses on the development of knowledge and skills needed for working in the Engineering industry, which will prepare learners to enter the industry through employment or as an Apprentice. Furthermore, the completion of this qualification gives the learner the opportunity to progress onto higher education courses and training. Threshold competence is defined as when a learner's attainment against the knowledge, skills and behaviours is of a standard for them to enter the occupation and industry. They must also demonstrate the ability to achieve occupational competence over time with the correct support and training.