

# Product Design and Development Technician (Apprenticeship Standard)

Each Apprenticeship Standard comprises the following areas:

- 1. Knowledge Element** – A Technical Certificate awarded by EAL which covers the theory element of the Apprenticeship.
- 2. Competence Element** – A National Vocational Qualification which demonstrates that the Apprentice can carry out the skills required for their role, assessed directly within the workplace or in centre by an assessor.
- 3. Functional Skills** (English & Maths Level 2) If the Apprentice doesn't already hold Maths and English qualifications at the level required for your Apprenticeship, they will study these as part of your off-the-job training. An Information & Technology (IT) qualification may also be required.
- 4. Transferable Skills** The Apprentice programme will also include training to help them develop Personal Learning and Thinking Skills (PLTS) and an understanding of their rights as an employee within the workplace.

You may wish for the Apprentice to develop enhanced skills for their job role; these specialised units will be taught alongside the main programme.

There are two main stages of an Apprenticeship Standard: the Foundation stage and the Development stage. Each stage has Knowledge (theory) and Competence (practical skills) elements.

The Foundation stage consists of a Level 2 qualification. The Development stage consists of a Level 3 qualification and also incorporates the employee behaviours listed.

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## The Foundation stage Year 1

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### Apprentices will develop occupational / employee behaviours

#### Mandatory

Safety mindset; a problem-solving orientation; quality focus; personal responsibility and resilience; clear communication; being a team player; application of lean manufacturing principles; adaptability; self-motivation; willingness to learn; commitment; dependability and responsibility; positive attitude; honesty and integrity.

#### Foundation: Competence EAL Level 2 Diploma in Advanced Manufacturing Engineering

Qualification Code: 601/7179/0

#### Multiple Options

Complying with statutory regulations and organisational safety requirements; working efficiently and effectively in an engineering environment; using and communicating technical information; conducting business improvement activities; demonstrating personal accountability in an engineering environment; producing components using hand fitting techniques; using computer software packages to assist with engineering activities; producing engineering project plans; producing mechanical engineering drawings using a CAD system; producing tool and die assemblies.

All apprentices undertake a Foundation Phase Gateway Assessment before progressing onto the development stage.

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## Foundation and Development stages Year 1–2–3

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### Development: Knowledge Level 3 Diploma and Extended Diploma in Advanced Manufacturing Engineering

Qualification Code: 603/1354/7

#### Multiple Options

Health and safety in the engineering workplace; communications for

engineering technicians; mathematics for engineering technicians; engineering project; mechanical principles of engineering systems; electrical and electronic principles in engineering; properties and applications of engineering materials; further mechanical principles of engineering systems; applications of mechanical systems in engineering; engineering organisational efficiency and improvement; maintenance of fluid power systems and components; computer-aided design (CAD) techniques; application and principles of programmable logic controllers (PLCs); further mathematics for engineering technicians.

#### Development: Competence Advanced Manufacturing and Engineering – Product Design and Development

Qualification Code: 603/0926/X

#### Multiple Options

Complying with statutory regulations and organisational safety requirements; using and interpreting engineering data and documentation; working efficiently and effectively in advanced manufacturing and engineering.

The Competence titles below cover 86 optional units, you will be required to select 4 units from these options.

Computer-aided drawing; quality control; mechanical testing; computer control programming; operational technical support; business improvement; installation and commissioning; testing electronic circuits/ components; manufacturing electrical control systems equipment; machine tool setting; fitting and assembly.

On successful completion of the development element, apprentices will also undertake an end point assessment at an approved assessment centre.

# Are you looking to attract new talent or upskill your employees?

## The Elite Centre for Manufacturing Skills' Apprenticeship programmes offer a number of benefits for employers.

Our Metalforming and Foundry centres have been designed by industry for industry. Access to state-of-the-art industrial standard equipment at each centre is complimented by the knowledge and expertise of our industry-specialist trainers. These experienced professionals, who are currently leading the way in the sector, will deliver training and assessment which will develop the vital skills needed in the next generation of employees.

As expert Apprenticeship providers, The Elite Centre for Manufacturing Skills (ECMS) can help employers throughout the process. Our dedicated Business Development Manager will guide you on how to recruit trainees and Apprentices, giving you all the support and information you need.

Our Business Development Manager will also work with you to construct a training programme tailored both to the needs of the sector and to your needs as a specific employer, focusing on the skills you need in your business.

All new Apprenticeships are now called Apprenticeship Standards; these are replacing the current Apprentice Frameworks.



### What are the assessment methods?

There are no exams with the competence. Apprentices are assessed on their knowledge and skills on an on-going basis and will have to demonstrate that they can meet the required standards throughout their training. There will, however, be examinations for the Knowledge qualifications and functional skills.

All Apprentices will have an allocated Training Officer who will oversee training at work and at the ECMS. Their Training Officer will visit at least once every three months to review the Apprentice's progress and help them with any problems they might have.

### How long is the course?

The Apprenticeship ends when the Apprentice has completed all of the necessary components of the course. This can take between two and four years.

Year 1 Apprentices will attend Dudley College for two days a week 8am-6pm and will work with their employer for the other three days a week. There are a variety of delivery models available depending on your needs eg: block release (eg: 1 week in 5) or full-time. Local accommodation is available.

Year 2-3/4 Apprentices will attend the ECMS training facilities at the National Metalforming Centre (NMC) and Dudley College for one day per week (or block release).

### ECMS Apprenticeship costs

- 16-18-year-olds are free for Non-Levy payers if you have less than 50 employees\*
- 19+ up to £2,700 for an SME Non-Levy Payer\*\*

Employers will pay 10% towards the cost of apprenticeship training and the Government will pay the rest (90%) eg: Apprenticeship standard current maximum fee £27,000.

If you are a Levy payer you will have to contribute up to £9,000 from your Levy account.

\*If an employer recruits a 16-18-year-old Apprentice the employer may receive a £1,000 incentive payment, This will be paid over two equal instalments at 3 months and 12 months.

\*\*19-24-year-old Care leavers and those on EHCP are fees exempt.

For more information on the Elite Centre for Manufacturing Skills (ECMS) and the Apprenticeship training available, please contact:

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