

Engineering futures through skills

A guide to our engineering and manufacturing qualifications and apprenticeships



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Introduction

Explore training and skills development opportunities to build successful careers in areas from welding and fabrication to aeronautical engineering and beyond.

With sustainability now at the top of the agenda and processes and technologies constantly changing, this is an exciting time to be involved in engineering at any level. Whether it's starting a new career or staying up to date with the latest industry trends as an experienced professional, training and upskilling are more important than ever.

We offer qualifications, programmes and skills solutions across key industry sub-sectors like mechanical and nuclear engineering. These are developed with the support of employers and industry experts making sure that our learners have the skills and knowledge that employers and the sector itself need.

Covering everything from short courses to apprenticeships, our qualifications and programmes support you to create a highly skilled workforce for the future.

To ensure that you and your learners have the best experience, by choosing City & Guilds, you gain access to:

- A vast library of qualification materials and resources
- Support from our team of industry and technical experts
- Guidance on curriculum planning, delivery, funding updates, and quality assurance



Engineering apprenticeships

Our range of level 2 and level 3 apprenticeship standards and end-point assessment (EPA) are available in England for learners over 16 with no upper age limit.

Apprenticeship standards are funded by the government or via an employer levy, which can be used to pay for training and assessment costs.

As an EPA market leader, we have delivered more than 80,000 assessments since EPA started, with a 90% pass rate.

Apprentices learn directly from experienced industry professionals, receiving training both on the job and off the job, all while contributing to their organisation and earning a salary.



Learning resources to support apprenticeships

Apprenticeship training manuals

We have a range of apprenticeship training manuals that include tasks to support your apprentices' progression during the on-programme phase, plus signposted opportunities to demonstrate/develop soft skills, behaviours and maths and English. They also include appraisal documentation to be used for the annual reviews.

Training manuals are available to purchase for the majority of our apprenticeship standards and can be accessed in SmartScreen, our tutor and learner support website.

[Find out more](#)

Digital learning resources

Teacher packs consisting of schemes of work, student and teacher handouts, lesson PowerPoints and practice questions are available on SmartScreen.

[Find out more](#)

E-portfolio platform

Our e-portfolio platform Learning Assistant is designed with learner progress in mind, allowing apprentices to collect and store evidence related to their programme to support learning and development throughout their apprenticeship and aid in preparation for EPA.

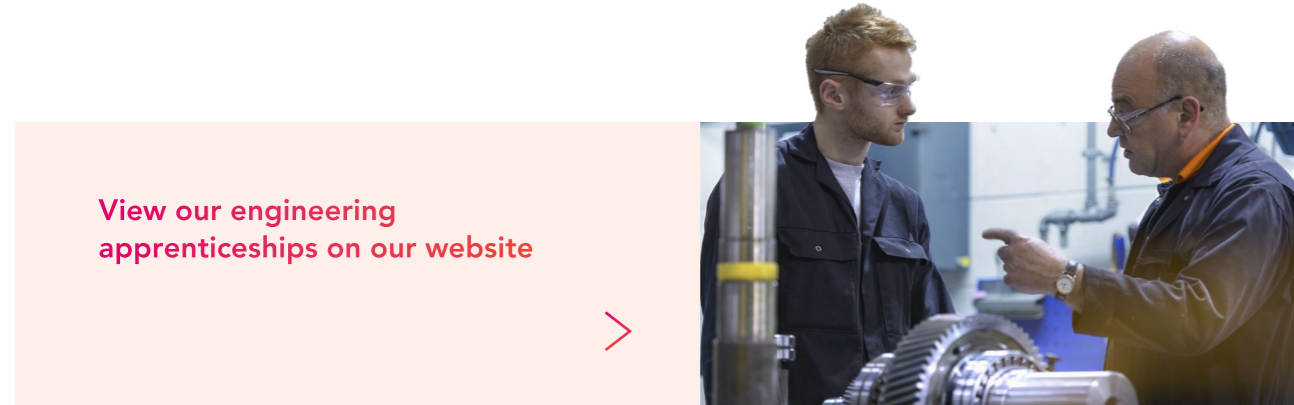


Apprenticeships

Standard	On-programme qualifications	EPA
Level 2 Engineering Operative ST0537	<ul style="list-style-type: none"> Level 2 Diploma in Engineering Operations (Skills) (4505-12) AND Level 2 Certificate in Engineering Operations (Knowledge) (4510-11) OR Level 2 Diploma in Engineering Operations (Knowledge) (4510-12) 	Engineering Operative (9325)
Level 2 Lean Manufacturing Operative ST0420	<ul style="list-style-type: none"> Level 2 Diploma in Manufacturing (Knowledge and Skills) (4500-12) 	Lean Manufacturing Operative (9315)
Level 3 Engineering Fitter ST0432	<ul style="list-style-type: none"> Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-03) OR Level 3 Extended Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-04) 	Engineering Fitter (9335)
Level 3 Machining Technician ST1305	<ul style="list-style-type: none"> Level 3 Diploma in Machining (1273-03) <p>Non-mandatory</p> <ul style="list-style-type: none"> Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competency) (1271-02) Level 2 Diploma in Machining (Foundation Knowledge) (1272-02) 	Machining Technician (1273)
Level 3 Metal Fabricator ST0607	<ul style="list-style-type: none"> Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-03) OR Level 3 Extended Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-04) 	Metal Fabricator (9345)
Level 3 Maintenance and Operations Engineering Technician ST0154 (Electrical pathway)	<p>Non-mandatory</p> <ul style="list-style-type: none"> Level 2 NVQ Diploma in Performing Engineering Operations (7682-20) 	Maintenance and Operations Engineering Technician (9320)
Level 3 Maintenance and Operations Engineering Technician ST0154 (Mechanical pathway)	<ul style="list-style-type: none"> Level 3 Diploma in Engineering - Maintenance, Installation and Commissioning (2850-33) 	Maintenance and Operations Engineering Technician (9320)

Standard	On-programme qualifications	EPA
Level 3 Maintenance and Operations Engineering Technician ST0154 (Control and Instrumentation pathway)	<ul style="list-style-type: none"> Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-03) 	Maintenance and Operations Engineering Technician (9320)
Level 3 Maintenance and Operations Engineering Technician ST0154 (Electromechanical Technician pathway)	<ul style="list-style-type: none"> Level 3 Extended Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-04) 	Maintenance and Operations Engineering Technician (9320)
Level 3 Engineering Technician ST0457 (Aerospace Manufacturing Fitter / Aerospace Manufacturing Electrical / Mechanical and Systems Fitter pathway)	<ul style="list-style-type: none"> Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) (4605-02) Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Knowledge) (4705-02) 	-
Level 3 Engineering Technician ST0457 (Aircraft Fitter / Technician (Fixed and Rotary Wing) pathway)	<ul style="list-style-type: none"> Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) (4605-02) OR Level 2 Diploma in Aerospace and Aviation Engineering (Military Foundation Competence) (4608-50) AND Level 3 Diploma in Aviation Maintenance (Development Competence) (4608-30) OR Level 3 Diploma in Aviation Maintenance (Development Competence) - Military (4608-60) AND Level 3 Diploma in Aircraft Maintenance (Civil Aircraft Mechanical) (2675-05) OR Level 3 Diploma in On-Air Maintenance Category A (2675-04) OR Level 3 Diploma in Aircraft Maintenance (Military) (4708-30) 	-

Standard	On-programme qualifications	EPA
Level 3 Engineering Technician ST0457 (Airworthiness, Planning, Quality and Safety Technician pathway)	<ul style="list-style-type: none"> - Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) (4605-02) AND - Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) (4515-03) AND - Level 3 Diploma in Aircraft Maintenance (Civil Aircraft Mechanical) (2675-05) OR - Level 3 Diploma in On-Air Maintenance Category A (2675-04) OR - 4708-30 Diploma in Aircraft Maintenance (Military) OR 	-
Level 3 Engineering Technician ST0457 (Maritime Electrical / Mechanical Fitter, Maritime Fabricator, Maritime Pipeworker pathway)	<ul style="list-style-type: none"> - Level 2 Diploma in Maritime Defence (Foundation Competence) (4615-02) - Level 2 Diploma in Maritime Defence (Foundation Knowledge) (4715-02) - Level 3 Diploma in Maritime Defence (Development Competence) (4615-03) - Level 3 Diploma in Maritime Defence (Development Knowledge) (4715-03) 	-
Level 3 Engineering Technician ST0457 (Survival Equipment Fitter pathway)	<ul style="list-style-type: none"> - Level 3 Diploma in Aeronautical Engineering Survival Equipment Maintenance (4808-30) 	-



View our engineering apprenticeships on our website



“The T Level gives me a mix of academic work, but also gives me a head start in getting a career with the work experience that’s included in the programme.”

Brandon
 T Level learner at Exeter College,
 placement Snows Toyota

[Read the full case study](#)

Qualifications

Explore our industry-recognised qualifications designed to support a diverse range of career choices, including fully funded qualifications at level 1, our new level 2 technical occupational entry qualification and our exclusive sector T Levels at level 3.

Our offer also includes NVQs which provide essential skills development for those entering the sector and short courses to deliver key skills to individuals at every stage of their careers.

Funding note: The Education and Skills Funding Agency (ESFA) regularly changes the funded qualification offer due to the ongoing qualification reforms. We advise checking funding criteria and eligibility on the ESFA ['Find a learning aim'](#) database before registering your learner to ensure the learning aim is funded.



Learning resources to support qualifications

SmartScreen

To support your teaching, we provide a range of tutor resources for the qualifications listed below. These materials are available through SmartScreen with a subscription which gives you access to schemes of work, worksheets, activities, handouts, PowerPoint presentations, and multiple-choice questions:

- Level 1, 2 and 3 Certificate/Diploma in Engineering (2850)
- Level 2 and 3 Certificate in Computer Aided Design and Manufacturing (7579)



Level 1 qualifications

This entry level qualification is ideal for those considering a career in engineering and will provide a basic understanding of engineering principles.

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 1 Certificate in Engineering (2850-10)	600/0879/9	180	England, Wales, Scotland, NI, International

Level 2 qualifications

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
New for 2025	610/4541/X	360	England
Level 2 Extended Technical Occupational Entry in Engineering (Diploma) (2145-12)			
– Production Engineering (Manufacturing)			
– Maintenance			
– Fabrication and Welding			
Level 2 Certificate in Engineering - Manufacturing Technology (2850-20)	600/0880/5	300	England, Wales, Scotland, NI, International
Level 2 Certificate in Engineering - Maintenance Technology (2850-21)	600/0880/5	300	England, Wales, Scotland, NI, International
Level 2 Certificate in Engineering - Fabrication and Welding Technology (2850-22)	600/0880/5	300	England, Wales, Scotland, NI, International
Level 2 Certificate in Engineering - Electrical & Electronics Technology (2850-23)	600/0880/5	300	England, Wales, Scotland, NI, International
Level 2 Diploma in Engineering - Manufacturing Technology (2850-24)	600/0881/7	360	England, Wales, Scotland, NI, International
Level 2 Diploma in Engineering - Maintenance Technology (2850-25)	600/0881/7	360	England, Wales, Scotland, NI, International

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 2 Diploma in Engineering - Fabrication and Welding Technology (2850-26)	600/0881/7	360	England, Wales, Scotland, NI, International
Level 2 Diploma in Engineering - Electrical & Electronics Technology (2850-27)	600/0881/7	360	England, Wales, Scotland, NI, International
Level 2 Technical Certificate in Engineering (1145-21)	603/0294/X	300	England, Wales, NI

NEW

Level 2 Extended Technical Occupational Entry in Engineering (Diploma)

Launching in September 2025, this level 2 qualification has been developed as part of the post-16 qualification reforms and will be funded for 16-18 year old and adult learners in England. It has been designed with the involvement of a range of technical subject matter experts and employers and aligns fully with the occupational standards ST0537 Engineering Operative / ST0349 Welder.

[Find out more about this qualification](#)

[Download the draft qualification handbook](#)



T Levels

T Levels are fully-funded qualifications available to 16–19-year-olds in England. Based on the same set of standards as apprenticeships, these two-year programmes combine classroom or workshop-based learning with a 45-day work placement to give young learners a breadth of knowledge and skills relating to the engineering sector. Learners earn UCAS points to allow for progression into higher education or into an apprenticeship.

[Explore T Levels](#)



T Levels support resources

We have a range of free resources for tutors to download from the City & Guilds website, including:

- Past exam papers
- Sample schemes of work
- Worksheets
- Sample assessment materials, including MCQ papers
- Chief examiner reports
- On-demand webinars and regular online Q&As
- In-person events hosted by sector and policy experts

[Explore our resource and support hub](#)

Level 3 qualifications

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 3 T Level in Maintenance, Installation and Repair for Engineering and Manufacturing (8712) – 8730 Engineering and Manufacturing Core – 8712-31 Mechanical – 8712-32 Mechatronics – 8712-33 Electrical & Electronics – 8712-34 Control & Instrumentation – 8712-35 Light & Electric Vehicles	610/0692/0	1360	England
Level 3 T Level in Engineering, Manufacturing, Processing and Control (8713) – 8730 Engineering and Manufacturing Core – 8713-31 Fitting and Assembly Technologies – 8713-32 Machining and Toolmaking Technologies – 8713-33 Composites Manufacturing Technologies – 8713-34 Fabrication and Welding Technologies	600/0882/9	1360	England
Level 3 T Level in Design and Development for Engineering (8714) – 8730 Engineering and Manufacturing Core – 8714-31 Mechanical Engineering – 8714-32 Electrical & Electronics Engineering – 8714-33 Control & Instrumentation Engineering – 8714-34 Structural Engineering	610/0516/2	1360	England
Level 3 Advanced Technical Certificate in Engineering (1145-30)	601/4535/3	360	England, Wales, NI
Level 3 Advanced Technical Extended Diploma in Engineering (1145-32)	601/4506/7	720	England, Wales, NI
Level 3 Diploma in Engineering – Welding (2850-30)	600/0882/9	480	England, Wales, Scotland, NI, International
Level 3 Diploma in Engineering - Fabrication (2850-31)	600/0882/9	480	England, Wales, Scotland, NI, International



Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 3 Diploma in Engineering - Fabrication and Welding (2850-32)	600/0882/9	480	England, Wales, Scotland, NI, International
Level 3 Diploma in Engineering - Maintenance, Installation and Commissioning (2850-33)	600/0882/9	480	England, Wales, Scotland, NI, International
Level 3 Diploma in Engineering - Mechanical Manufacturing Engineering (2850-34)	600/0882/9	480	England, Wales, Scotland, NI, International
Level 3 Diploma in Engineering - Electrical & Electronics Engineering (2850-35)	600/0882/9	480	England, Wales, Scotland, NI, International
Level 3 Diploma in Engineering - Shipbuilding (2850-36)	600/0882/9	480	England, Wales, Scotland, NI, International

View our engineering qualifications on our website



Level 1-2 NVQs in performing engineering operations

These qualifications are essential for anyone starting out in a career in engineering and advanced manufacturing. Undertaken in either the workplace or college environment they allow people to demonstrate their competence, set against National Occupational Standards, in a wide range of engineering disciplines.

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 1 NVQ Certificate in Performing Engineering Operations (7682-10)	600/9470/9	160	England, Wales, NI
Level 1 NVQ Diploma in Performing Manufacturing Operations (7585-01)	501/2239/3	160	England, Wales, NI
Level 2 NVQ Diploma in Performing Engineering Operations (7682-20)	600/9471/0	214	England, Wales, NI
Level 2 NVQ Diploma in Performing Manufacturing Operations (7585-02)	501/1313/6	214	England, Wales, NI

Level 1-3 short courses in CAD/CAE

Our range of CAD training qualifications develop the skills for a career in manufacturing or engineering design, whether a learner is just starting out or an experienced designer looking to acquire specialist 2D/3D design skills.

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 1 Award in Parametric Modelling (7689-01)	601/5120/1	60	England, Wales, Scotland, NI, International
Level 2 Award in 2D Computer Aided Design (7689-04)	601/5115/8	60	England, Wales, Scotland, NI, International
Level 3 Award in 2D Computer Aided Design (7689-05)	601/5116/X	90	England, Wales, Scotland, NI, International



Level 1-3 short courses in welding

City & Guilds welding courses are designed for a range of abilities: from beginners who need basic welding training, to experienced welders who want to develop specialist skills.

Qualification	Accreditation number	Guided learning hours (GLH)	Available for delivery in
Level 1 Award in Introductory Welding Skills - Manual Metal Arc (MMA) Welding (3268-10)	600/3748/9	60	England, Wales, Scotland, NI, International
Level 1 Award in Introductory Welding Skills - Oxy Acetylene Welding (3268-11)	600/3753/2	60	England, Wales, Scotland, NI, International
Level 1 Award in Introductory Welding Skills - Tungsten Inert Gas (TIG) Welding (3268-12)	600/3754/4	60	England, Wales, Scotland, NI, International
Level 1 Award in Introductory Welding Skills - Metal Inert Gas (MIG) Welding (3268-13)	600/3749/0	60	England, Wales, Scotland, NI, International
Level 1 Certificate in Introductory Welding Skills (3268-17)	601/4170/0	120	England, Wales, Scotland, NI, International
Level 1 Certificate in Introductory Welding, Fabrication and Cutting Skills (3268-18)	601/4168/2	145	England, Wales, Scotland, NI, International
Level 2 Award in Welding Skills (3268-02)	500/4746/2	60	England, Wales, Scotland, NI, International
Level 2 Certificate in Welding Skills (3268-20)	600/4884/0	120	England, Wales, Scotland, NI, International
Level 3 Award in Advanced Welding Skills (3268-03)	500/4739/5	90	England, Wales, Scotland, NI, International

More skills solutions for your learners

Support your learners at every stage of their journey with functional skills, employability skills, leadership qualifications and more.

Skills for Work and Life: Functional Skills

For skills that unlock potential, our flexible programmes create stepping stones to success.

City & Guilds Functional Skills qualifications for maths, English and digital are designed for learners at college, on adult learning programmes, and for those working towards apprenticeships. They provide learners with the essential skills to navigate real-life situations, support future employment opportunities, and further their studies confidently and successfully.

They are available across five levels (entry 1 to level 2) for maths and English and at two levels (entry 3 and level 1) for digital skills. We offer flexible assessment types to support various learning routes and progression pathways, as well as a range of digital resources to help learners succeed.

[Find out more about Skills for Work and Life](#)

ILM

Develop tomorrow's leaders with our globally-recognised leadership and management provision. From supervision to strategic leadership (levels 2-7), ILM qualifications and apprenticeships give you the frameworks and support to deliver high-impact professional development.

[Find out more about ILM](#)



Assured – accredit your in-house training

We know that some organisations have specific training needs that cannot be met by existing qualifications. Our Assured service has been designed to evaluate and certify in-house training programmes against our Assured Benchmark Standards, confirming the quality of the processes and systems used to design, plan and deliver the training. Securing Assured recognition demonstrates the strength of your training both internally and externally, showing that you take your employees' development seriously and that you are ensuring your workforce has the skills that you need.

[Learn more about Assured](#)








Why work with City & Guilds

Working with City & Guilds gives you access to comprehensive support including qualification resource materials, in-person and online events and direct, tailored support from our teams of sector and technical experts.

As part of our commitment to supporting learners into a job, on the job and onto the next job, we also offer accreditation and certification for a modern, digital-first world, whether that's through our verifiable digital credentials or our Assured in-house training accreditation service.

Explore our range of services and support...




 <p>People support</p>	 <p>Networking & Events</p>	 <p>Teaching & learning support</p>
 <p>Digital credentials</p>	 <p>Online resources & funding information</p>	



People support

We understand the value our customers put on having direct access to the support they need to maximise success. That's why our specialist teams are available to support you at every stage of planning and delivery.

Learn more about our support teams...

<p>EPA partnership managers</p> <p>From onboarding apprentices through to EPA, our partnership managers support customers at every stage of the apprenticeship journey.</p> <p>Find out more</p> 	<p>Digital solutions managers</p> <p>Our digital support team provide training sessions and advice on how to get the most out of our e-learning and admin platforms to support a smooth and successful delivery.</p> <p>Find out more</p>	<p>Client managers</p> <p>Our team of training experts work with employers to identify learning needs and maximise organisational growth through tailored Skills Discovery Sessions.</p> <p>Find out more</p> 
<p>Funding and policy team</p> <p>Get access to easy-to-digest funding and policy information and the latest updates.</p>	<p>Customer support team</p> <p>Whatever your question, our customer support team are available to support with all enquiries from providers, employers and learners.</p> <p>Find out more</p> 	<p>Industry managers</p> <p>Our dedicated industry experts keep customers, products and services up to date with the latest developments from their sectors, including regulatory, compliance and policy changes.</p>

Business development managers

Your local contact on-hand to support you with all aspects of qualifications, apprenticeships and skills development.

[Find out more](#)

Technical advisors

With in-depth knowledge of both education and industry, our technical experts offer flexible support with programme delivery through in-person and online events and visits.

[Find out more](#)



Networking and events

We run face-to-face and online events to keep you up to date with the latest policy and practice, as well as City & Guilds qualifications and services that support delivery.

[Find out more about our events](#)



Teaching and learning support



SmartScreen

SmartScreen is the City & Guilds tutor and learner support platform, providing online resources for our qualifications and apprenticeships.

Supporting over 150 qualifications and apprenticeships across 20 different industries, SmartScreen equips tutors and assessors with delivery tools and learners with engaging content.

[Learn more about SmartScreen](#)



Digital credentials

As more and more of the hiring process moves to an online-first model, having a digital way to help showcase knowledge and skills to potential employers can be a crucial tool to support career progression.

Digital credentials are a visual representation of an individual's skills that provide a convenient way to easily capture and share accomplishments and abilities online with professional networks and potential employers.

We offer digital credentials for the majority of our qualifications and programmes. They can be shared via email or social media and can provide a map of an individual's educational journey, giving your learners a competitive edge in the workplace.



Example learner journey



[Find out more about digital credentials](#)



Online resources and funding information

Qualifications reforms hub

Stay informed with updated guidance, timelines, upcoming support events, FAQs and news around City & Guilds qualifications.

[Find out more](#)

Find a learning aim (gov.uk)

See the latest information on available qualifications, apprenticeship standards, T Levels and units.

[Find out more](#)

Department for Education funding overview

View the Department for Education's full list of funding approval information for qualifications in England.

[Find out more](#)

Guide to the post-16 qualification landscape (Department for Education)

A high-level overview of level 3 and below reformed qualifications for 2025 and beyond.

[Find out more](#)

Partner with City & Guilds

Interested in delivering
City & Guilds qualifications,
apprenticeships or EPA?

As a trusted leader in skills development, we offer a comprehensive range of qualifications and training solutions to prepare individuals for success in today's evolving workplace.

Working with us gives you access to a broad portfolio across multiple sectors, from entry-level qualifications to senior leadership pathways. Our on-hand support teams are here to help you deliver the best learning experience for your learners.

Complete our form linked below to learn more about our engineering qualifications and training solutions.

[Get in touch](#)

About City & Guilds

Since 1878 we have worked with people, organisations and economies to help them identify and develop the skills they need to thrive. We understand the life changing link between skills development, social mobility, prosperity and success. Everything we do is focused on developing and delivering high-quality training, qualifications, assessments and credentials that lead to jobs and meet the changing needs of industry.

We work with governments, organisations and industry stakeholders to help shape future skills needs across industries. We are known for setting industry-wide standards for technical, behavioural and commercial skills to improve performance and productivity. We train teams, assure learning, assess cohorts and certify with digital credentials. Our solutions help to build skilled and compliant workforces.

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