Project Controls Expo – 16th Nov 2017
Emirates Stadium, London

Project Controls Technician Trailblazer Apprenticeship
Joining the Puzzle Together

Speakers

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Agenda

- Our Mission Today
- Background
- What You Need to Know First?
- 5 Steps for Starting an Apprenticeship Programme
  - Plan Your Apprenticeship Programme
  - Choose Apprenticeship Training and Assessment
  - Advertise a Vacancy to Recruit an Apprentice
  - Manage the Funding for Your Apprenticeship
  - Start a New Apprenticeship Contract
- Return on Investment
- ECITB Support
- Case Study and Delivery Approach

Our Mission Today

- In beginning to promote the apprenticeship, we have found that employers have a positive approach to the Project Controls Technician apprenticeship but are not sure:
  - **Who to engage with to get started**
  - **How to achieve a return on investment against the new apprenticeship levy**
  - **How best to establish Project Control apprenticeships and use the flexibility in the way the programme can be configured to meet their requirements for a viable programme**
  - **How to ensure the apprenticeship satisfies the mandatory criteria required by government.**
- *In this session, we will discuss options and guide you, with our professional knowledge, in the right direction to provide a sure start for training your Project Controls apprentices.*

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Background to Project Controls Technician Level 3 Apprenticeship

- The 2012 Richard Review of Apprenticeships' reviewed how apprenticeships in England can meet the needs of the changing economy.
- The resulting 'implementation plan' set out the government's approach to changing apprenticeships
- In what is a major programme of reform, groups of employers **(Trailblazers)** lead the way in carrying out the changes to apprenticeships, working together to design apprenticeship standards and assessment approaches to make them world class
- From 2017/18, all new apprenticeship starts must be in accordance with the new requirements
- The Trailblazer programme is committed to reaching three million apprenticeship starts in England by 2020.

Background to Project Controls Technician Level 3 Apprenticeship

- In common with all new recognised apprenticeships there are two key deliverables:
  - Project Controls Technician Standard
  - Project Controls Technician End-Point Assessment
- The above deliverables are have been approved by the Minister of State for Skills and the apprenticeship
- A funding band (core government contribution which is currently capped at £21k per apprentice) has been assigned to the standard
- The apprenticeship is now ready for delivery

Background to Project Controls Technician Level 3 Apprenticeship

PROJECT CONTROLS TECHNICIAN (LEVEL 3) TRAILBLAZER EMPLOYER GROUP LED BY COSTAIN	
Lead Employer	**Costain**
Employers	Air Products, Aker Solutions, Alpha Plus, Alstom, AMEC Foster Wheeler, Atkins Global, Balfour Beattie, Bechtel, Bilfinger, Boulting, Cavendish Nuclear, CB&I, CH2MHill, Cordell Group, Crossrail, Decipher Group, Doosan, EDF Energy, Fabricom Engie, Fluor, HS2, Jacobs, KBR, LakerVent, Magnox, MOD, Mott MacDonald, Mustang Engineering, Nichols UK, Petrofac, PJD Ltd, Prima UnO, PruceNewman, Quartzeltec, Scottish Water, Sellafield, Shepley Engineers, Siemens, Singleton Birch, Total, Transport for Greater Manchester, Transport for London, Turner and Townsend, Worley Parsons, WSP
Professional and Sector Bodies	ACostE, APM, BCECA, CECES, ECITB, Engineering Construction Institute, GAPPS, IRM, N-SAN. RICS
Academia	University of Manchester, Cumbria University, Leeds University, Loughborough University, Richmond College
Training Organisations	20/20 Business Group, ACSL, Gen2, Monitor Mpower, The Project Controls Institute, TASC
Consultants	Estimata, First Planner, Pathfinder Planning, Sunbeam, The Judgement Index
Government	DfE, HMRC

What You Need to Know First?
The Standard

Apprenticeship standards describe the occupational profile linked to the **knowledge, skills and behaviours (KSBs**) that bring full competence in a particular occupation. They describe how an apprentice can demonstrate mastery of this occupation by the end of the apprenticeship.

The standard itself is a **short, concise document** containing a clear occupational profile setting out the responsibilities of the occupation and linked to the knowledge, skills and behaviours which will be applied in the workplace.

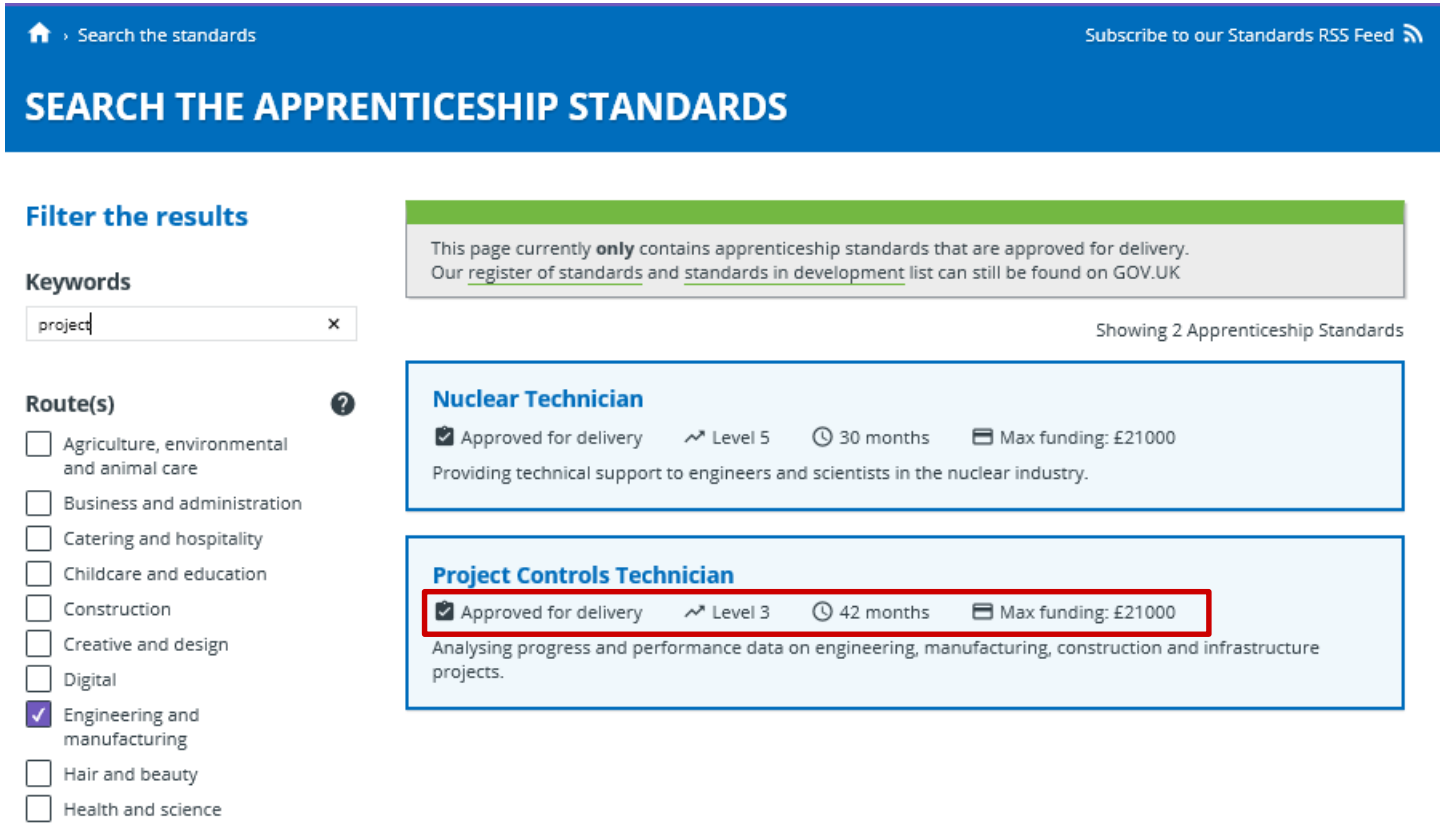
The standards are proposed, designed and delivered by employers to equip apprentices with the knowledge, skills and behaviours they need to succeed in their occupation.

What You Need to Know First?
The Standard

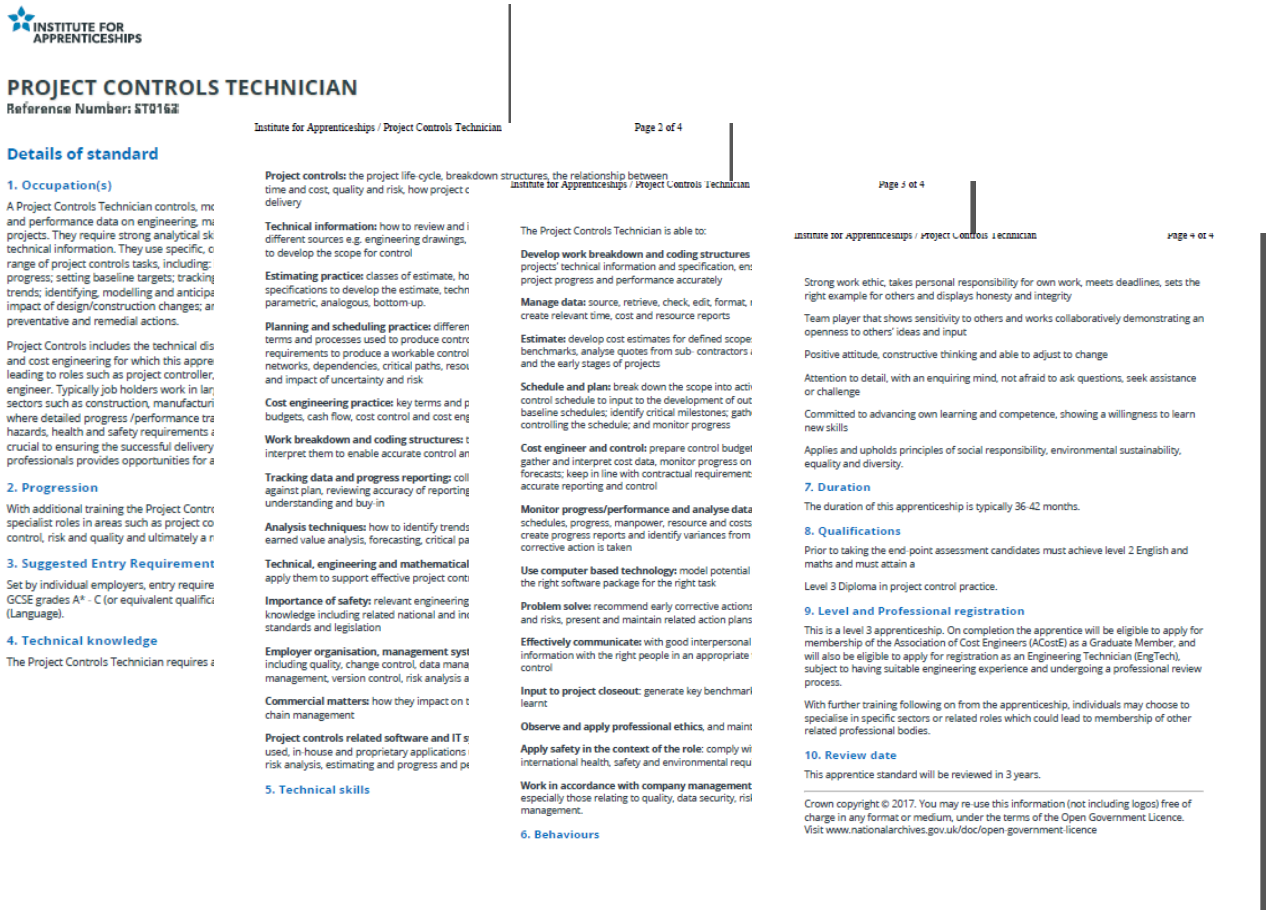
Visit https://www.instituteforapprenticeships.org/employers/

What You Need to Know First?
The Standard

Visit https://www.instituteforapprenticeships.org/search-the-standards/



What You Need to Know First?
The Standard



INSTITUTE FOR APPRENTICESHIPS

PROJECT CONTROLS TECHNICIAN

Reference Number: ST0163

Details of standard

1. Occupation(s)

A Project Controls Technician controls, mo
and performance data on engineering, ma
projects. They require strong analytical sk
technical information. They use specific, c
range of project controls tasks, including:
progress; setting baseline targets; tracking
trends; identifying, modelling and anticipa
impact of design/construction changes; ar
preventative and remedial actions.

Project Controls includes the technical dis
and cost engineering for which this appre
leading to roles such as project controller,
engineer. Typically job holders work in lar
sectors such as construction, manufacturi
where detailed progress /performance tra
hazards, health and safety requirements a
crucial to ensuring the successful delivery
professionals provides opportunities for a

2. Progression

With additional training the Project Contro
specialist roles in areas such as project co
control, risk and quality and ultimately a r

3. Suggested Entry Requirement

Set by individual employers, entry require
GCSE grades A* - C (or equivalent qualifica
(Language).

4. Technical knowledge

The Project Controls Technician requires a

Project controls: the project life-cycle, breakdown structures, the relationship between time and cost, quality and risk, how project c delivery

Technical information: how to review and i different sources e.g. engineering drawings, to develop the scope for control

Estimating practice: classes of estimate, ho specifications to develop the estimate, techn parametric, analogous, bottom-up.

Planning and scheduling practice: differen terms and processes used to produce contro requirements to produce a workable control networks, dependencies, critical paths, resou and impact of uncertainty and risk

Cost engineering practice: key terms and p budgets, cash flow, cost control and cost eng

Work breakdown and coding structures: t interpret them to enable accurate control an

Tracking data and progress reporting: coll against plan, reviewing accuracy of reporting understanding and buy-in

Analysis techniques: how to identify trends earned value analysis, forecasting, critical pa

Technical, engineering and mathematical apply them to support effective project contr

Importance of safety: relevant engineering knowledge including related national and inc standards and legislation

Employer organisation, management syst including quality, change control, data mana management, version control, risk analysis a

Commercial matters: how they impact on t chain management

Project controls related software and IT s used, in-house and proprietary applications risk analysis, estimating and progress and pe

5. Technical skills

The Project Controls Technician is able to:

Develop work breakdown and coding structures projects' technical information and specification, ens project progress and performance accurately

Manage data: source, retrieve, check, edit, format, create relevant time, cost and resource reports

Estimate: develop cost estimates for defined scope benchmarks, analyse quotes from sub- contractors and the early stages of projects

Schedule and plan: break down the scope into acti control schedule to input to the development of out baseline schedules; identify critical milestones; gath controlling the schedule; and monitor progress

Cost engineer and control: prepare control budget gather and interpret cost data, monitor progress on forecasts; keep in line with contractual requirement accurate reporting and control

Monitor progress/performance and analyse data schedules, progress, manpower, resource and costs create progress reports and identify variances from corrective action is taken

Use computer based technology: model potential the right software package for the right task

Problem solve: recommend early corrective actions and risks, present and maintain related action plans

Effectively communicate: with good interpersonal information with the right people in an appropriate control

Input to project closeout: generate key benchmarl learnt

Observe and apply professional ethics, and maint

Apply safety in the context of the role: comply wi international health, safety and environmental requ

Work in accordance with company management especially those relating to quality, data security, risl management.

6. Behaviours

Strong work ethic, takes personal responsibility for own work, meets deadlines, sets the right example for others and displays honesty and integrity

Team player that shows sensitivity to others and works collaboratively demonstrating an openness to others' ideas and input

Positive attitude, constructive thinking and able to adjust to change

Attention to detail, with an enquiring mind, not afraid to ask questions, seek assistance or challenge

Committed to advancing own learning and competence, showing a willingness to learn new skills

Applies and upholds principles of social responsibility, environmental sustainability, equality and diversity.

7. Duration

The duration of this apprenticeship is typically 36-42 months.

8. Qualifications

Prior to taking the end-point assessment candidates must achieve level 2 English and maths and must attain a

Level 3 Diploma in project control practice.

9. Level and Professional registration

This is a level 3 apprenticeship. On completion the apprentice will be eligible to apply for membership of the Association of Cost Engineers (ACostE) as a Graduate Member, and will also be eligible to apply for registration as an Engineering Technician (EngTech), subject to having suitable engineering experience and undergoing a professional review process.

With further training following on from the apprenticeship, individuals may choose to specialise in specific sectors or related roles which could lead to membership of other related professional bodies.

10. Review date

This apprentice standard will be reviewed in 3 years.

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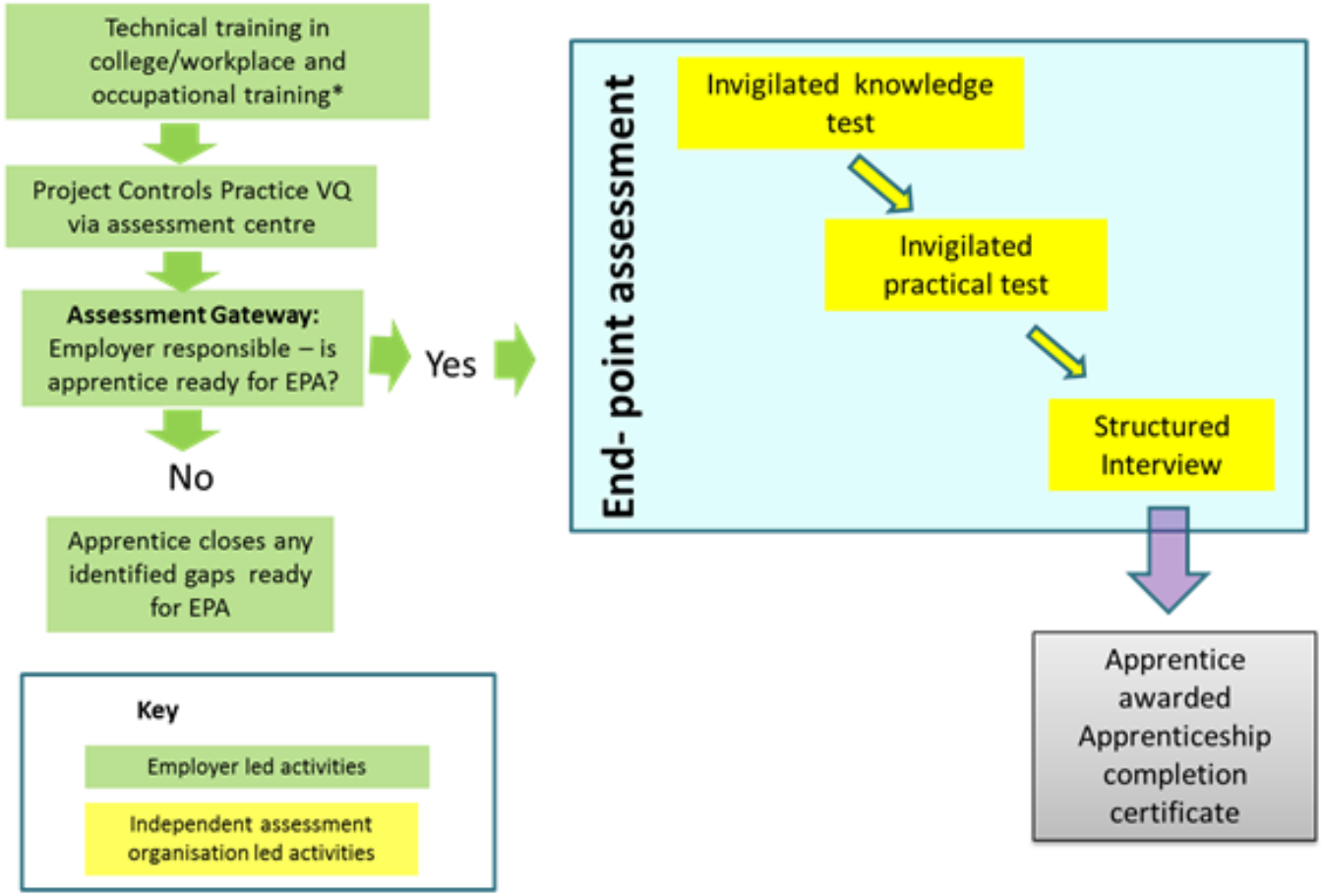
What You Need to Know First?
The Standard

KNOWLEDGE	SKILLS	BEHAVIOURS
▪ Project Controls ▪ Technical information: ▪ Estimating practice ▪ Planning and scheduling practice ▪ Cost engineering practice ▪ Work breakdown and coding structure ▪ Tracking data and progress reporting ▪ Analysis techniques ▪ Technical, engineering and mathematical principles ▪ Importance of safety ▪ Employer organisation, management systems, and procedures ▪ Commercial matters ▪ Project Controls related software and IT systems	▪ Develop work breakdown and coding structures ▪ Manage data ▪ Estimate ▪ Schedule and plan ▪ Cost engineer and control ▪ Monitor progress/ performance and analyse data ▪ Use computer based technology ▪ Problem solve ▪ Effectively communicate ▪ Input to project closeout ▪ Observe and apply professional ethics ▪ Apply safety in the context of the role	▪ Strong work ethic, takes personal responsibility for own work, meets deadlines, sets the right example for others and displays honesty and integrity ▪ Team player that shows sensitivity to others and works collaboratively demonstrating an openness to others' ideas and input ▪ Positive attitude, constructive thinking and able to adjust to change ▪ Attention to detail, with an enquiring mind, not afraid to ask questions, seek assistance or challenge ▪ Committed to advancing own learning and competence, showing a willingness to learn new skills ▪ Applies and upholds principles of social responsibility, environmental sustainability, equality and diversity

What You Need to Know First?
The End Point Assessment



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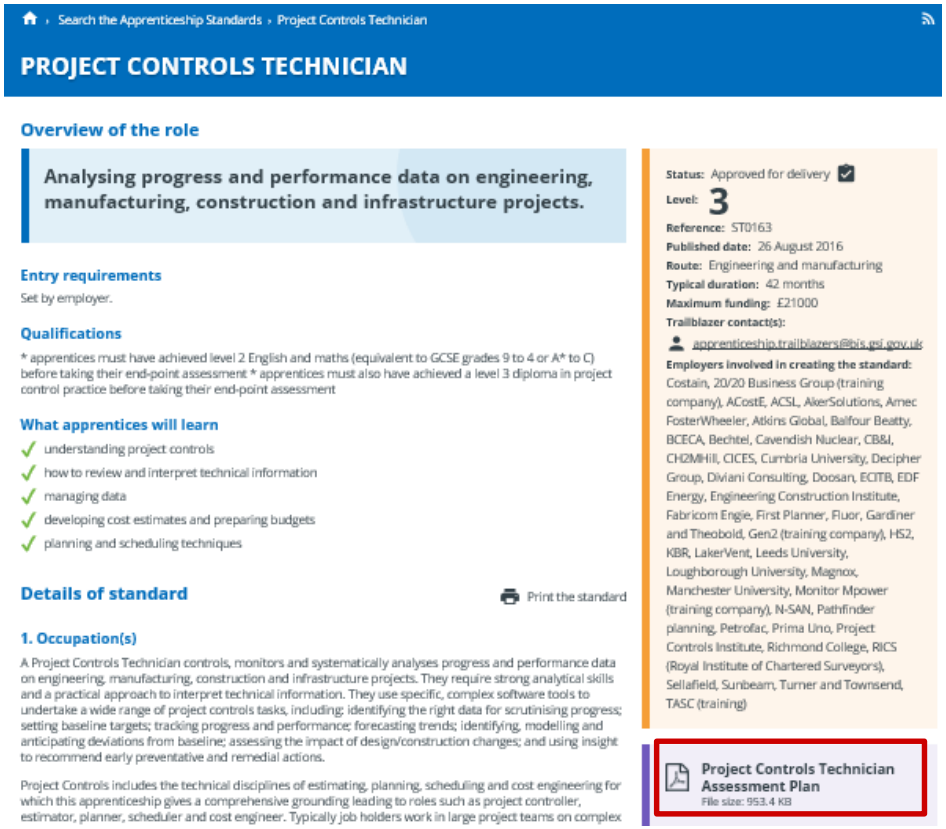
What You Need to Know First?
The End Point Assessment

All apprentices must undertake an independent end-point assessment which is a synoptic assessment of the knowledge, skills and behaviours that have been learnt throughout the apprenticeship. The purpose of the assessment is to make sure the apprentice meets the standard set by employers and are fully competent in the occupation.

It is taken by apprentices at the very end of the on-programme phase of training when their employer (and in some cases their training provider) is satisfied that they have met the "gateway" criteria to undertake the assessment. End-point-assessments are graded and an apprenticeship certificate is only awarded after end-point assessment is successfully completed.

What You Need to Know First?
The End Point Assessment

Visit https://www.instituteforapprenticeships.org/search-the-standards/



Search the Apprenticeship Standards › Project Controls Technician

PROJECT CONTROLS TECHNICIAN

Overview of the role

Analysing progress and performance data on engineering, manufacturing, construction and infrastructure projects.

Entry requirements

Set by employer.

Qualifications

* apprentices must have achieved level 2 English and maths (equivalent to GCSE grades 9 to 4 or A* to C) before taking their end-point assessment * apprentices must also have achieved a level 3 diploma in project control practice before taking their end-point assessment

What apprentices will learn

- ✓ understanding project controls
- ✓ how to review and interpret technical information
- ✓ managing data
- ✓ developing cost estimates and preparing budgets
- ✓ planning and scheduling techniques

Details of standard

Print the standard

1. Occupation(s)

A Project Controls Technician controls, monitors and systematically analyses progress and performance data on engineering, manufacturing, construction and infrastructure projects. They require strong analytical skills and a practical approach to interpret technical information. They use specific, complex software tools to undertake a wide range of project controls tasks, including: identifying the right data for scrutinising progress; setting baseline targets; tracking progress and performance; forecasting trends; identifying, modelling and anticipating deviations from baseline; assessing the impact of design/construction changes; and using insight to recommend early preventative and remedial actions.

Project Controls includes the technical disciplines of estimating, planning, scheduling and cost engineering for which this apprenticeship gives a comprehensive grounding leading to roles such as project controller, estimator, planner, scheduler and cost engineer. Typically job holders work in large project teams on complex

Status: Approved for delivery

Level: 3

Reference: ST0163

Published date: 26 August 2016

Route: Engineering and manufacturing

Typical duration: 42 months

Maximum funding: £21000

Trailblazer contact(s):

apprenticeship.trailblazers@bis.gsi.gov.uk

Employers involved in creating the standard: Costain, 20/20 Business Group (training company), ACostE, ACSL, AkerSolutions, Amec FosterWheeler, Atkins Global, Balfour Beatty, BCECA, Bechtel, Cavendish Nuclear, CB&I, CH2MHill, CICES, Cumbria University, Decipher Group, Diviani Consulting, Doosan, ECITB, EDF Energy, Engineering Construction Institute, Fabricom Engie, First Planner, Fluor, Gardiner and Theobold, Gen2 (training company), HS2, KBR, LakerVent, Leeds University, Loughborough University, Magnox, Manchester University, Monitor Mpower (training company), N-SAN, Pathfinder planning, Petrofac, Prima Uno, Project Controls Institute, Richmond College, RICS (Royal Institute of Chartered Surveyors), Sellafield, Sunbeam, Turner and Townsend, TASC (training)

Project Controls Technician Assessment Plan
File size: 953.4 KB

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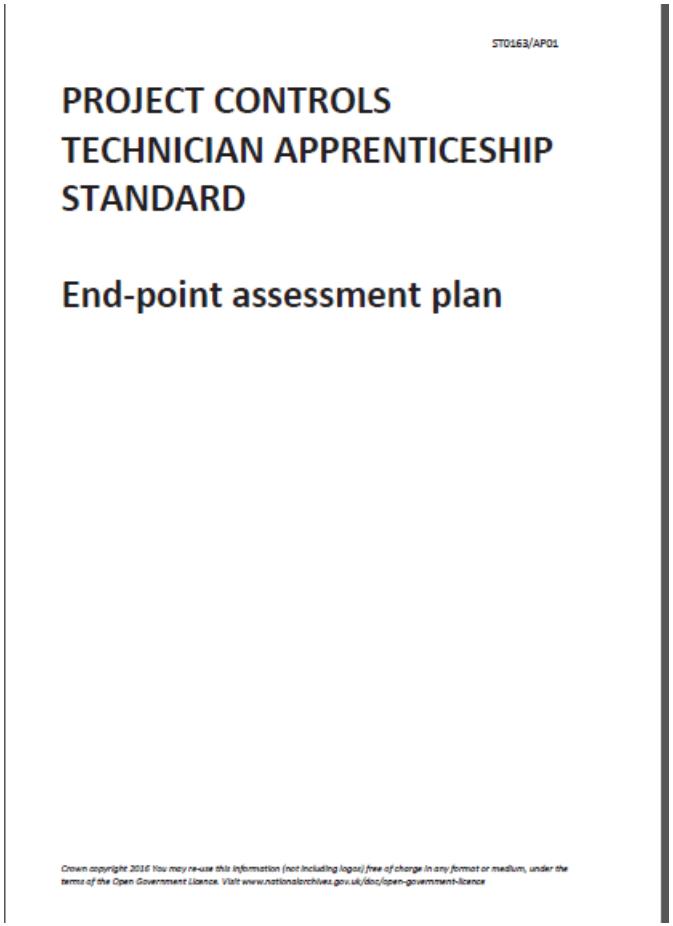
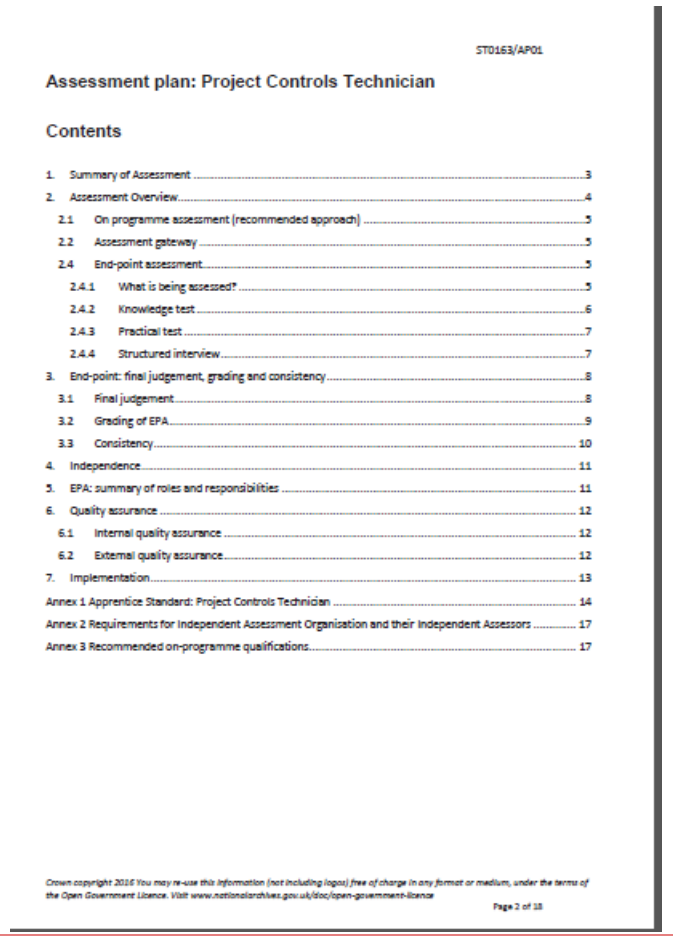
What You Need to Know First?
The End Point Assessment



ST0163/AP01

PROJECT CONTROLS TECHNICIAN APPRENTICESHIP STANDARD

End-point assessment plan



Assessment plan: Project Controls Technician

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5 Steps for Starting an Apprenticeship Programme

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1 Plan Your Apprenticeship Programme

Estimate how much funding you will have to spend on your apprenticeship

- ☐ Is your company a levy payer?
  [The levy is paid on annual paybills in excess of £3 million at 0.5% (includes wages, bonuses and commissions]
- ☐ How much government funding per year is available to your company for apprenticeship training?
  [This is 0.5% of annual paybill - £15,000 allowance) + 10% top up from government (for employees in England only)] for calculator see https://estimate-my-apprenticeship-funding.sfa.bis.gov.uk/

1 Plan Your Apprenticeship Programme

Business Case and Strategy

- ☐ Has your company established a business need?
- ☐ Has your company developed an overall strategy for apprenticeships?
- ☐ What occupations are involved?
- ☐ Where does project controls fit in (how many?, when?, where?)
- ☐ Do you want existing staff and/or new employees as apprentices?
- ☐ Do you have the forward workload for the desired number of apprentices?
- ☐ What scope do you have to charge the time, cost and expenses of your apprentices to projects?
  (will some of these employment costs need to be overhead?)
- ☐ Have you considered frequency and salary increases for your apprentices?
- ☐ What about market rates when they complete the apprenticeship?

1 Plan Your Apprenticeship Programme

Looking after the Apprentices

- ☐ Do you have enough staff capacity to train and support the desired number of apprentices 'on the job'?
  (coaches, mentor, workplace buddy's etc.)
- ☐ Do you know that apprentices under age 18 are not permitted to work overtime (more than 40 hours/week) under working time regulations?
- ☐ Do you have a duty of care in place?
  (e.g. if you need the apprentices to work away from home, what about driving, cars or car allowance, arranging accommodation, subsistence)
- ☐ Have you considered short weekly meetings between the coach and apprentice - especially for the first two or three months
- ☐ Have you considered the frequency of performance development reviews?

1 Plan Your Apprenticeship Programme

Big question worth thinking about:

Do you need to collaborate with other companies to form an apprenticeship cohort that can deliver to your requirements, or can you go it alone?

2 Find the Right Type of Training

Mandatory training for your project control apprentices

- ☐ Vocational Qualification (Level 3 Diploma) in project controls

Circa 2-3 years and includes:

- **Preparation of evidence portfolio**
- **Attend half day meetings with assessor, bi-monthly or as required**

2 Find the Right Type of Training

Typical 'Off the Job' Project Controls Theory and Practice training options can you choose to include:

- ECITB Introduction to Project Controls
  (4 days)
- Project controls technical knowledge modular training
  (circa 20 days)
- Apply project controls knowledge to simulated project working in team(s)
  (circa 50 days)
- ECITB Certificate in Project Controls
  (9 month programme: 8 x 1 day workshops + 8 x 2-3 day assignments
  + 1 x presentation day)

2 Find the Right Type of Training

Typical 'Off the Job' Project Controls software training options you can choose from (Costain examples):

- ☐ Primavera P6 Core Skills
  (2 days)
- ☐ Primavera P6 Resources
  (2 days)
- ☐ Proprietary Estimating & Cost Management Systems - Basic
  (2 days)
- ☐ Proprietary Estimating & Cost Management Systems - Intermediate
  (2 to 4 days)
- ☐ Earned Value Management Using Primavera P6
  (2 days)
- ☐ Risk Management - Primavera Risk Manager and/or @Risk
  (2 to 4 days)

2 Find the Right Type of Training

Typical 'Off the Job' Engineering, Practical and HSSE Training options you can choose from:

- ❑ Engineering Design & Drafting Skills, CAD Systems etc.
  (circa 70 days)
- ❑ Abridged craft skills - Measuring and Marking Out, Welding, Fabrication, Pipework Assembly, Mechanical and Pipe Fitting, Electrical Wiring, Slinging and Lifting
  (circa 115 days)
- ❑ Practical application - e.g. make a toolbox, screw jack and pressure vessel
  (circa 35 days)
- ☐ IOSH working safety course
  (3 days)
- ☐ Drugs awareness and road safety
  (circa 6.5 hours over 2 weeks)

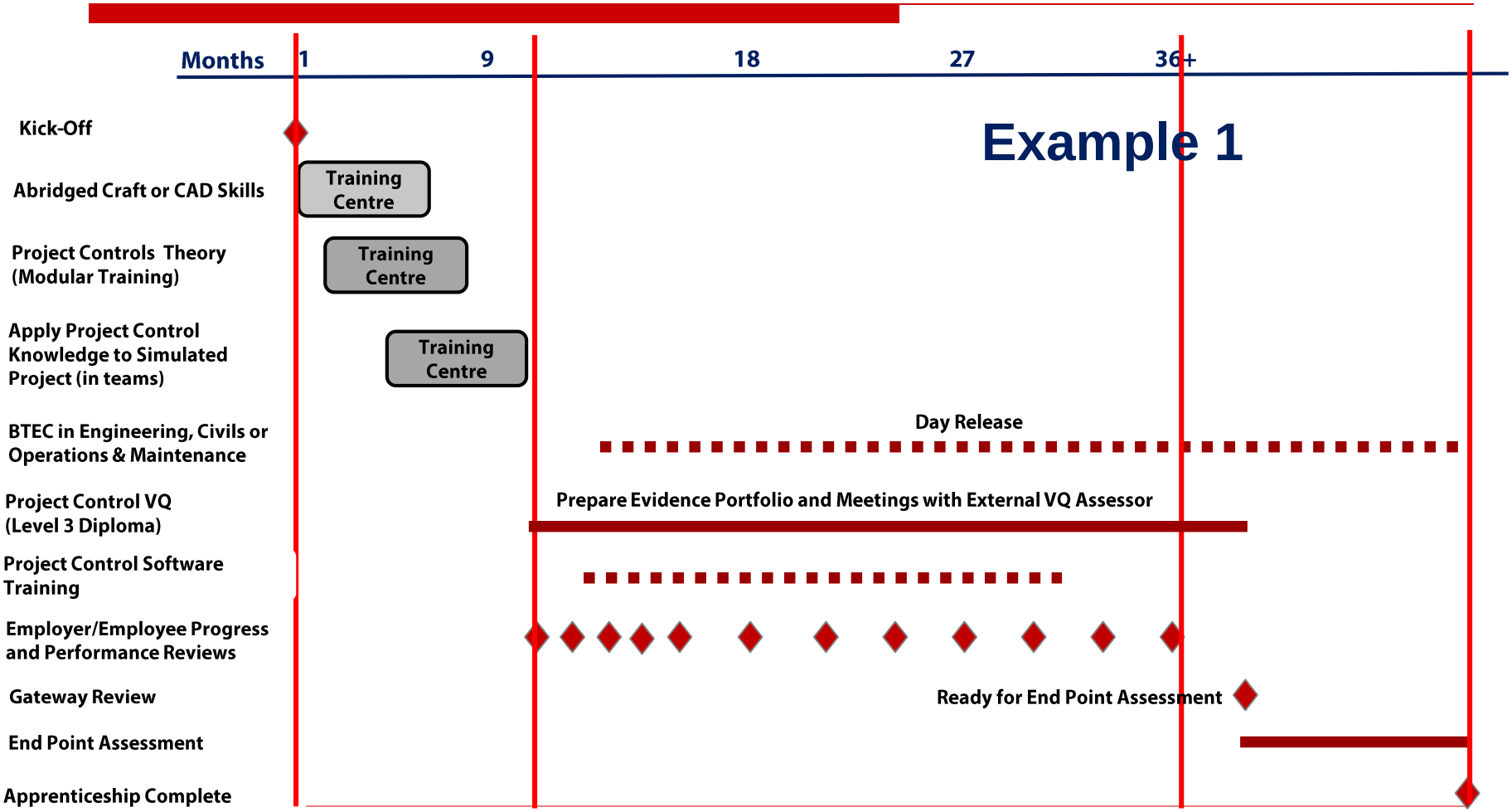
2 Find the Right Type of Training

Typical 'Off the Job' Further Education you can choose from:

- BTEC in Engineering
- BTEC in Civils for the Built Environment
- BTEC in Operations & Maintenance

All above are DAY OR BLOCK RELEASE and circa 70 days

2 Find the Right Type of Training



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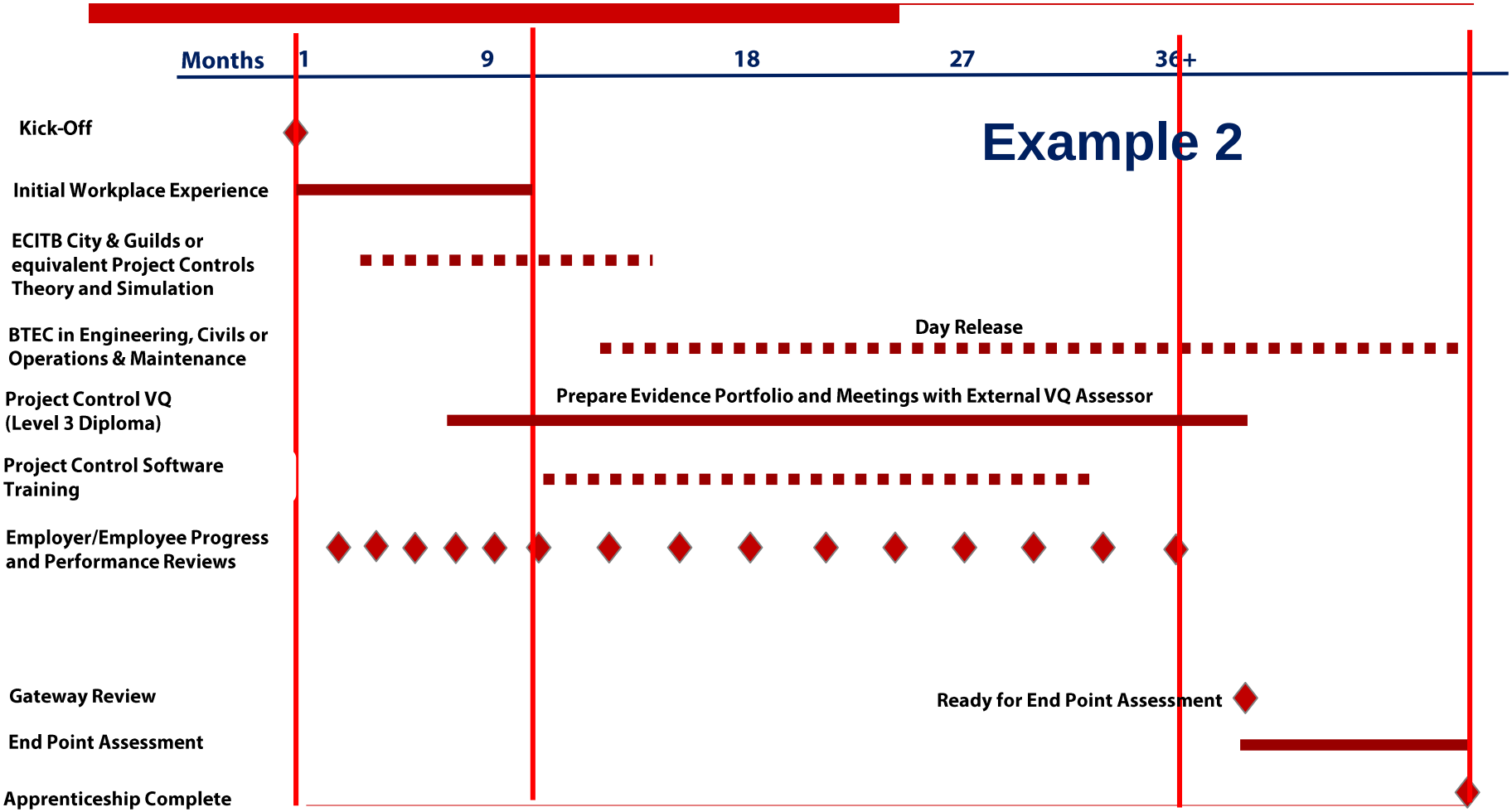
2 Find the Right Type of Training



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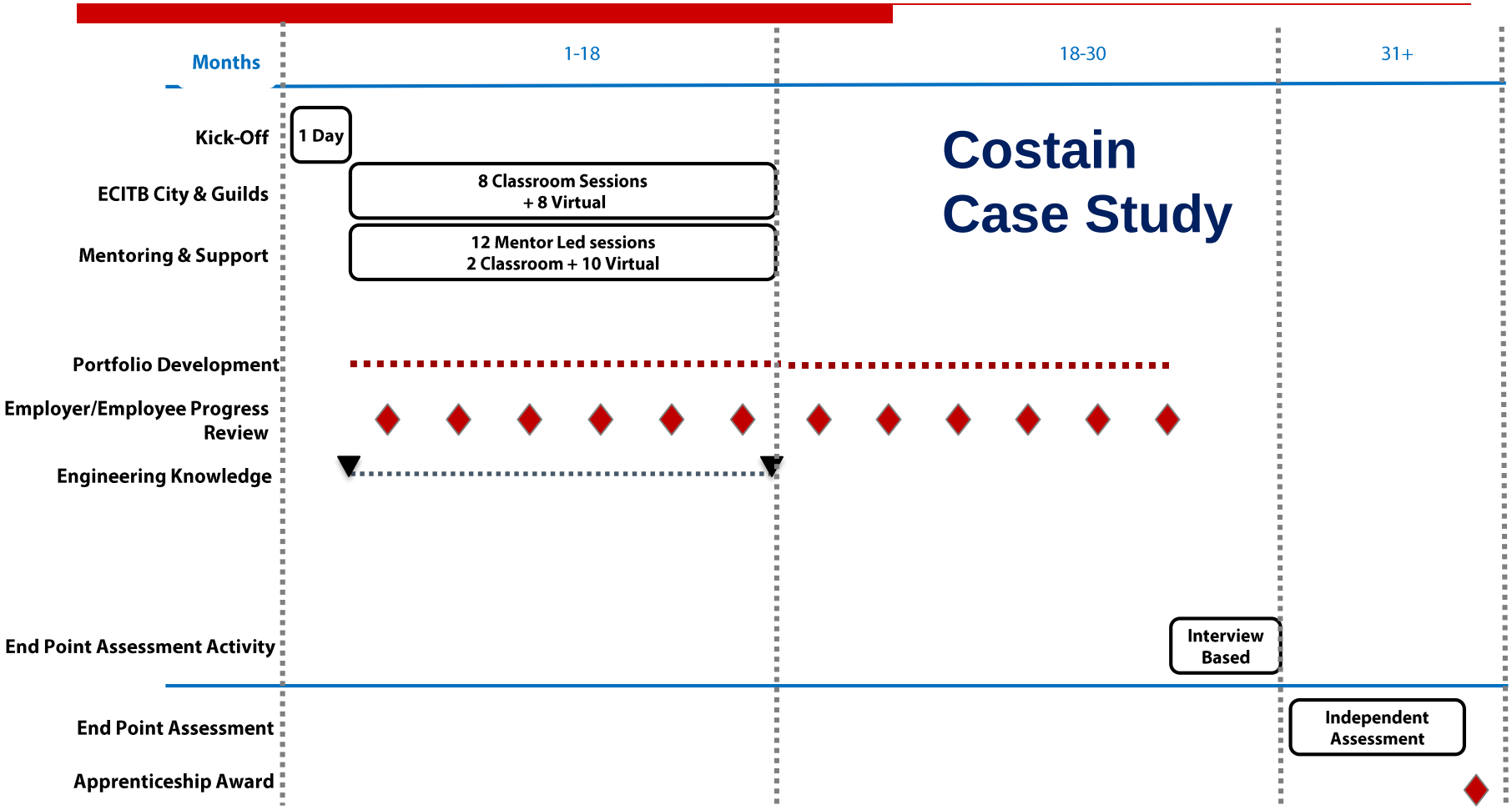
2 Find the Right Type of Training



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2 Find the Right Type of Training

Costain Case Study

Subject Area	Subject Detail	Covered in C&G	Additional Areas to be Addressed
Project controls	the project life-cycle, breakdown structures, the relationship between time and cost, quality and risk, how project controls is critical to successful project delivery	P	Different Project Life Cycles, Differing Breakdown structures and Risk Management
Technical information	how to review and interpret technical information from different sources e.g. engineering drawings, manufacturing plans or construction plans to develop the scope for control	P	Examples of technical information and how to interpret the information provided
Estimating practice	classes of estimate, how to interpret technical requirements and specifications to develop the estimate, techniques for estimate development such as parametric, analogous, bottom-up.	P	Levels of estimates, Estimating techniques and practices, Basis of Estimate (BOE)
Planning and scheduling practice	difference between planning and scheduling, key terms and processes used to produce control schedules, how to interpret the technical requirements to produce a workable control schedule including development of logic networks, dependencies, critical paths, resource management, levelling and smoothing and impact of uncertainty and risk	P	Risk and Uncertainty in Planning & Scheduling, Resource Management, Leads Lags, Resource and time management techniques
Cost engineering practice	key terms and processes related to preparing control budgets, cash flow, cost control and cost engineering relationships	P	Cash Flow, Cost Engineering
Work breakdown and coding structures	their purpose, how to create, use and interpret them to enable accurate control and the need for flexibility	P	WBS in Cost Control
Tracking data and progress reporting	collection, validation and monitoring of data against plan, reviewing accuracy of reporting, how to tailor the presentation of data for understanding and buy-in	P	Data validation, Presentation of Data
Analysis techniques	how to identify trends and variances using techniques such as earned value analysis, forecasting, critical path analysis and risk analysis	P	EVM, CPA and Risk in variance analysis and forecasting
Technical, engineering and mathematical principles	what these are and how to apply them to support effective project controls within the context of the role	N	Identification and application of appropriate engineering and mathematical principles (or BTECH course)
Importance of safety	relevant engineering, construction and infrastructure specific knowledge including related national and industrial health, safety and environmental standards and legislation	P	Review, Awareness and Application of latest Health & Safety legislation. Additional stand-alone Safety course
Employer organisation, management systems, and procedures	related governance including quality, change control, data management and security, configuration management, version control, risk analysis and management, and document control	P	Configuration management, Version Control, Change and Data Management
Commercial matters	how they impact on the role, the basics of contract and supply chain management	P	Contract type and impacts to project controls
Project controls related software and IT systems	attributes, limitations and systems used, in-house and proprietary applications used for planning and scheduling, cost and risk analysis, estimating and progress and performance monitoring.	N	Use of software in the project control environment

2 Choose A Training Provider

- Your company should go to one of the single source approved training providers
- Your company and the lead training provider must agree a total price for each apprenticeship, which includes the costs of training and the End Point Assessment
- The lead training provider may subcontract some elements of the training - for example BTEC, VQ Assessment Services

2 Choose A Training Provider

Visit https://www.instituteforapprenticeships.org/search-the-standards/

Search the Apprenticeship Standards › Project Controls Technician

PROJECT CONTROLS TECHNICIAN

Overview of the role

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Project Controls includes the technical disciplines of estimating, planning, scheduling and cost engineering for which this apprenticeship gives a comprehensive grounding leading to roles such as project controller, estimator, planner, scheduler and cost engineer. Typically job holders work in large project teams on complex projects in sectors such as construction, manufacturing, engineering, energy and infrastructure – where detailed progress /performance tracking, and an understanding of on-site hazards, health and safety requirements and compliance is critical. This hands-on role is crucial to ensuring the successful delivery of

Status: Approved for delivery
Level: 3
Reference: ST0163
Published date: 26 August 2016
Route: Engineering and manufacturing
Typical duration: 42 months
Maximum funding: £21000
Trailblazer contact(s):
apprenticeship.trailblazers@bis.gsi.gov.uk
Employers involved in creating the standard:
Costain, 20/20 Business Group (training company), ACostE, ACSL, AkerSolutions, Amec FosterWheeler, Atkins Global, Balfour Beatty, BCECA, Bechtel, Cavendish Nuclear, CB&I, CH2MHill, CICES, Cumbria University, Decipher Group, Diviani Consulting, Doosan, ECITB, EDF Energy, Engineering Construction Institute, Fabricom Engie, First Planner, Fluor, Gardiner and Theobold, Gen2 (training company), HS2, KBR, LakerVent, Leeds University, Loughborough University, Magnox, Manchester University, Monitor Mpower (training company), N-SAN, Pathfinder planning, Petrofac, Prima Uno, Project Controls Institute, Richmond College, RICS (Royal Institute of Chartered Surveyors), Sellafield, Sunbeam, Turner and Townsend, TASC (training)

Project Controls Technician Assessment Plan
File size: 953.4 KB

Find apprenticeship training providers that deliver this standard

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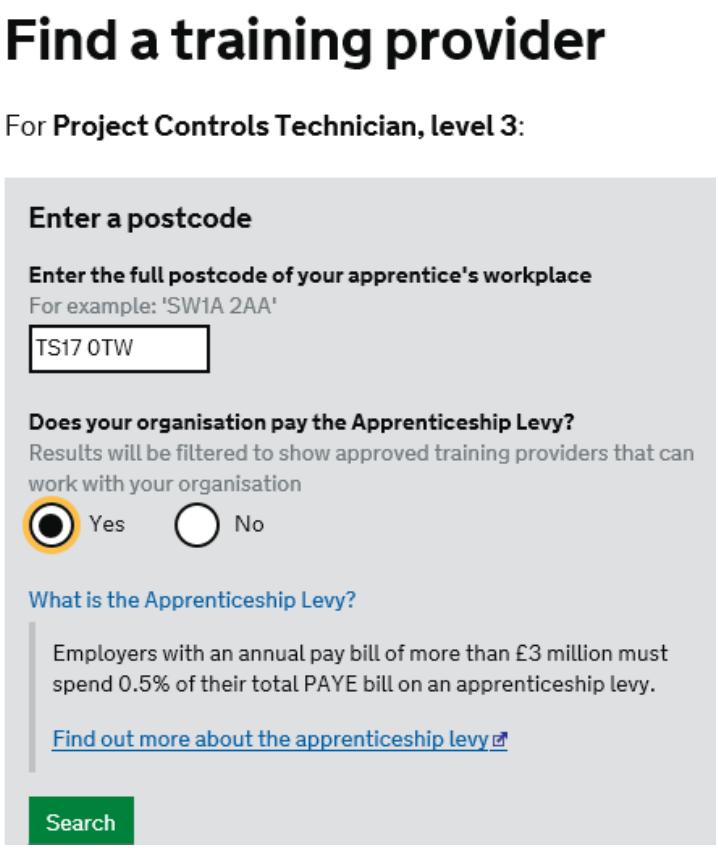
2 Choose A Training Provider



2 Choose A Training Provider

Search results

There is **1** training option for the **Project Controls Technician, level 3** apprenticeship.
Results are ordered by distance from '**TS17 0TW**'.

Results labelled National are training options run by providers who are willing to offer training across England.

Filter results

Training options

- ☐ day release (0)
- ☐ block release (0)
- ☐ at your location (1)

Explain training options

> **Day release:** for example one day a week at the training provider's location.

LONDON COLLEGE OF BUSINESS AND LAW LIMITED

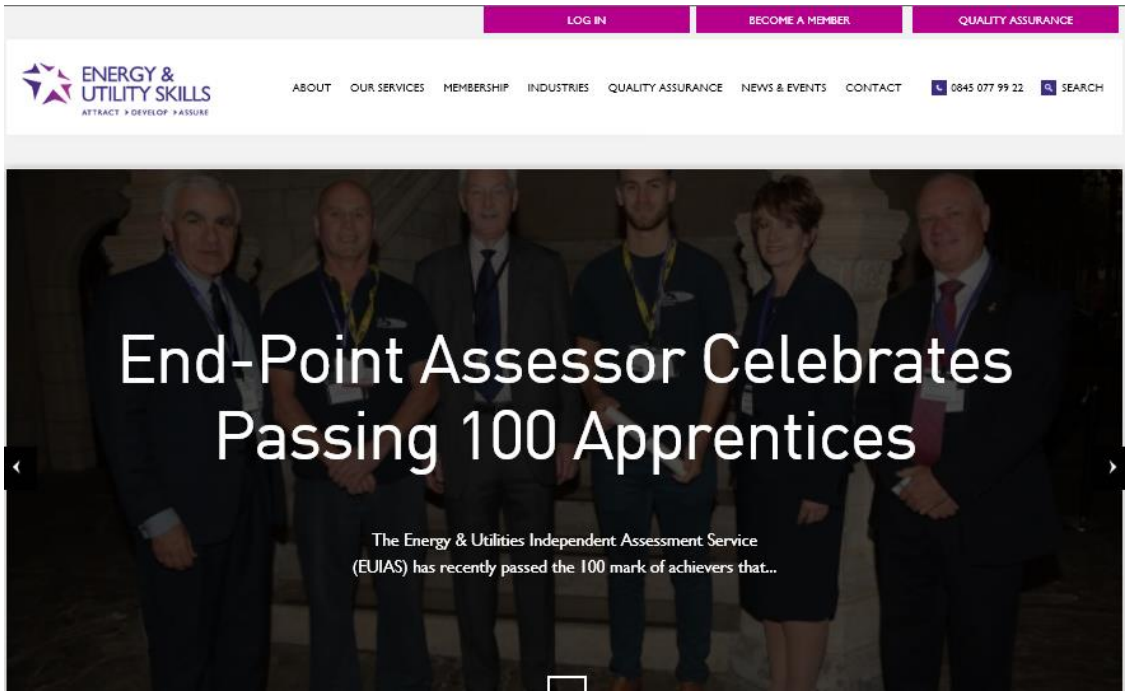
National

Distance: 206.4 miles away
Training options: at your location
Employer satisfaction: no data available
Learner satisfaction: no data available
Achievement rate: no data available

2 Choose Who Will Assess Your Apprentices at the End of Their Apprenticeship

The End Point Assessment is provided by Energy & Utility Skills

http://www.euskills.co.uk/



3 Advertise a Vacancy to Recruit an Apprentice

- Have you agreed a timescale for the vacancy
- For external vacancies, work with your training provider to post the apprenticeship opportunity and follow your companies recruitment process
- Think about arranging an assessment day
- L&D should be involved with HR and hiring manger or nominee in supporting the interview and short list/selection process

4 Manage the Funding for Your Apprenticeship

- Register securely to set up an employer account
- Work with the current balance of your levy and any previous transactions
- Forecast your funding available in the future
- Find out support available if you don't have enough levy

5 Start a New Apprenticeship Contract

- Agree how much you want to pay a training provider from your levy account
- Manage payments to your training provider and see when they will be paid
- Pause or stop a payment to you training provider

Return on Investment

- Key measure to resolve shortage of competent project controllers
- Growing your own, engagement with the business, building loyalty
- Bringing more balance and diversity to your organisation
- Skill levels accredited against National Occupational Standards
- 'Can do' requirements of VQ's prove they can do the job (competence)
- Development of rounded Project Controllers (Estimating/Planning/Cost) rather than single discipline
- Project Control apprentices have no baggage so readily learn, accept and apply key your project control processes and procedures
- Another route to Project Management
- Enhances career development framework and succession planning
- Sustainability - compensates for people leaving the industry

Quality Assessment of Project Controls Assessment - ECITB

- ECITB is an awarding organisation
- Quality, comprehensive project controls skills assessment is critical to the engineering construction industry
- ECITB Awarding Body – audits training organisations which deliver the project controls VQ
- Gives employers confidence in the assessment
- Currently 13 training organisations approved to assess Project Controls Level 3 VQ

KBR, East Cost College, Richmond-upon-Thames, Southampton Engineering Training Association, Doosan Power Systems, Warwickshire College, Stockport Engineering Training Association, TASC (The Assessment Services Centre), The Engineering College, Training 2000, West College Scotland, KT Associates, NETA Training Trust.

The ECITB vocational qualifications in project controls: https://www.ecitb.org.uk/Qualifications/Qualifications-Offered/Professional/Project-Control

ECITB Project Controls Training Courses and Standards

- ECITB has supported the industry-led Project Controls Working Group since 2007
- Together, have developed a number of project controls training courses and training standards
- ECITB's skills arm quality audits training companies that deliver training to Engineering construction companies – these training companies become approved ECITB training suppliers.

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Project Controls Training Courses and Standards

- ECITB audits companies that deliver these courses and awards approval to those that meet the required quality standards.
- Short courses in: risk management, document management, Intro to Project Controls, estimating methodology and practice and 9 month Certificate in Project Controls
- Training Standards at Levels 2, 3 and 5 (total of 12, 17 and 23)
- If a training organisation develops courses based on the training standards then the courses are reviewed by an ECITB panel of training experts before being awarded ECITB approval. Currently

Project controls apprentice standard - marketing materials

Available for you to use and tailor to use to encourage applicants into the project controls apprenticeship :

- Videos: https://vimeo.com/15802690 (6.30)
- The apprentice standard flyer
- Photos and also quotes on 'why work in project controls' from many members of the Trailblazer Group
- A document on available project controls training and qualifications from the ECITB: https://www.ecitb.org.uk/About-Us/Media-Centre/Publications/project-controls-programmes-2016
- The career profile document
- Case studies on the careers website: http://careers.ecitb.org.uk/
- Detailed case studies from ACostE

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PROJECT CONTROLS CAREER ENTRY AND PROGRESSION PATH

ECITB Training Standards for Project Controls, Estimating, Planning and Cost Engineering

An Industry-led Project Controls Working Group has developed a set of agreed industry training standards to ensure consistent, high quality training which meets their needs. Companies and approved training providers can use the standards to develop their own bespoke training and be confident that this training will meet industry requirements. Courses developed from the standards can be submitted to ECITB to gain the seal of quality approval for the course. Each training standard links to the existing Vocational Qualifications and details the training necessary to develop the skills needed from trainee project controller up to competent senior project controller or technical lead (i.e. lead estimator, lead planner, lead scheduler, lead cost engineer).

Level 2 Training Standards		Level 3 Training Standards		Level 5 Training Standards	
PC TS02-01	Introduction to Project Controls	PC TS03-01	Project control overview	PC TS05- 01	Manage effective application of quality processes and IT
PC TS02-02	Introduction to Commercial Awareness and Risk	PC TS03-02	Breakdown and coding structures	PC TS05- 02	Scoping and requirements definition
PC TS02-03	Gather and Process Data for Project Control Activities	PC TS03-03	Project control reporting and related governance systems	PC TS05- 03	Acquiring and acting on information
PC TS02-04	Introduction to Monitoring, Forecasting and Reporting	PC TS03-04	Monitoring risk, opportunity and uncertainty	PC TS05- 04	Risk analysis and management (including opportunity and uncertainty)
PC TS02-05	Introduction to Quality Management Systems and Change Management	PC TS03-05	Monitoring, tracking, forecasting and reporting project progress	PC TS05- 05	Maintaining, controlling and reporting on project progress
PC TS02-06	Introduction to Estimating	PC TS03-06	Commercial awareness and planning procurement activities	PC TS05- 06	Task & project close-out
PC TS02-07	Introduction to Planning and Scheduling	PC TS03-07	Financial controls and techniques	PC TS05- 07	Advanced estimating practice
PC TS02-08	Introduction to Cost Engineering	PC TS03-08	Estimating practice	PC TS05- 08	Advanced planning and scheduling practice
PC TS02-09	Communicating with Stakeholders	PC TS03-09	Planning and scheduling practice	PC TS05- 09	Advanced budgeting and cost control practice
PC TS02-10	Introduction to Health & Safety, Environmental, Ethical and Behavioural Procedures	PC TS03-10	Budgeting and cost control practice	PC TS05- 10	Interpreting and applying financial controls
PC TS02-11	Introduction to Self-development	PC TS03-11	Supporting construction or manufacturing planning	PC TS05- 11	Leading the establishment of construction or manufacturing plans
		PC TS03-12	Optimisation and efficiency	PC TS05- 12	Earned value management
		PC TS03-13	Generating and using statistical data	PC TS05- 13	Advanced optimisation and efficiency practice
		PC TS03-14	Using learning curve models	PC TS05- 14	Analysing and interpreting statistical data
		PC TS03-15	Communicating with stakeholders	PC TS05- 15	Developing and calibrating learning curve models
		PC TS03-16	Professional ethics	PC TS05- 16	Continuous improvement
		PC TS03-17	Professional development	PC TS05- 17	Bids, tenders and commercial contracts
				PC TS05- 18	Managing procurement activities
				PC TS05- 19	Claims and dispute resolution
				PC TS05- 20	Stakeholder management
				PC TS05- 21	Professional ethics
				PC TS05- 22	Continuing professional development (self and others)
				PC TS05- 23	Managing and developing others

PROJECT CONTROLS TECHNICIAN APPRENTICESHIP STANDARD - **LEVEL 3**

Why project controls?

"A local company was advertising for Planning Engineers on major capital projects …… I thought I will give it 3 years and then move on. In reality I found the job so exciting and stimulating I progressed over 15 years and several major projects into Project Control Management, becoming functional head. What kept me enthralled was the challenges, and how best could we deliver them, even though I was not a designer I was at the heart of many key decisions and the Project Manager or Director's right hand man!!"
- Nigel Hibberd

Project controls plays a vital role in businesses that operate at the cutting edge of developments in society and technology. There is a shortage of skilled professionals and there are great career opportunities.

The Government has updated apprenticeships in England to make them more focused on occupations. Employers are in the driving sear and have created this apprenticeship with a focus on the knowledge, skills and behaviours that are required to have a successful career as a project controls apprentice.

20/20 Business Group	First Planner
ACostE	Fluor
ACSL	Gardiner and Theobold
AkerSolutions	Gen2 (training company)
Amec FosterWheeler	HS2
APM	KBR
Atkins Global	LakerVent
Balfour Beatty	Leeds University
BCECA	Loughborough University
Bechtel	Magnox
Cavendish Nuclear	Manchester University
CB&I	Monitor Mpower
CH2MHill	N-SAN
CICES	Pathfinder planning
Costain	Petrofac
Cumbria University	Prima Uno
Decipher Group	Project Controls Online (training)
Diviani Consulting	Richmond College
Doosan	RICS (Royal Institute of Chartered Surveyors)
EDF Energy	Sunbeam
Engineering Construction Institute	Turner and Townsend
Fabricom Engie	TASC (training)

Next steps

- Trailblazer working group have started to develop an expression of interest for a higher level Project Controls Professional apprentice standard.
- Due to meet in Jan 2018

Interested in more info, the Apprentice Standard support and or being involved:

- Visit us on **stand 34**
- Contact: Shane Forth - shane.forth@ costain.com
- Catherine Lambert - catherine.lambert@ecitb.org.uk

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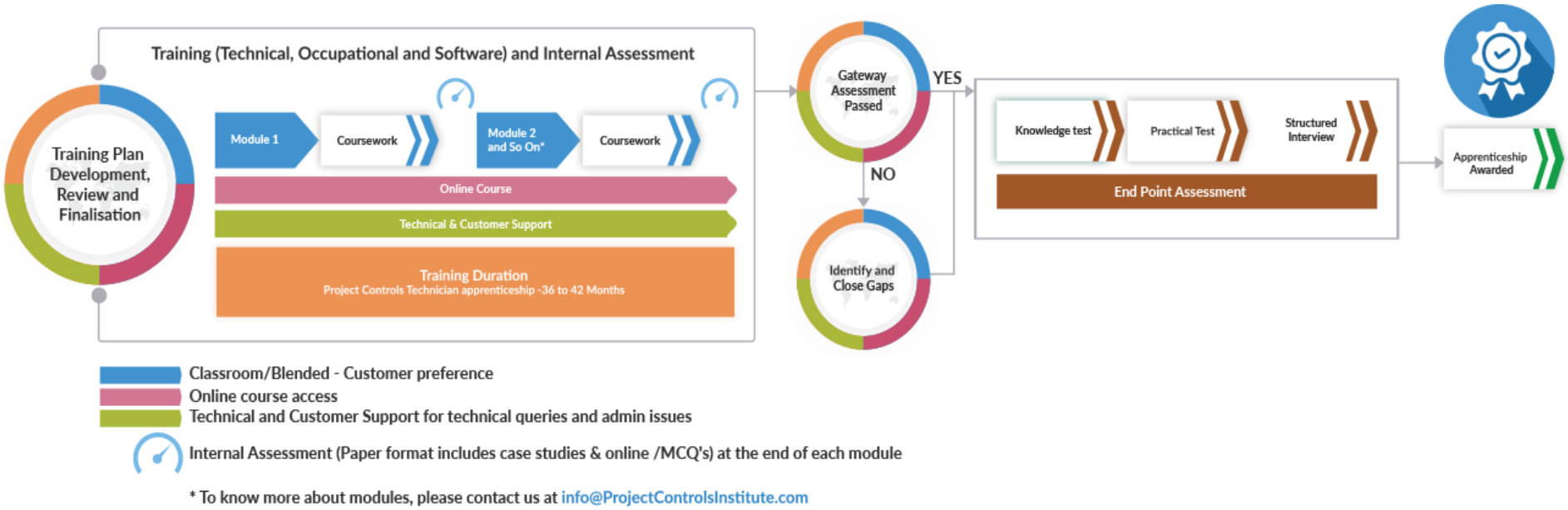
Case Study

Chelsea Mills and Brandon Smith from AWE we believe will be the first two L3 Project Controls Apprentices in the country

We have developed a unique & integrated approach to deliver these apprenticeships to offer “real education” in line with standard.

This approach develops competency and creates an environment that enables it to attract, develop and retain individuals who can contribute towards the business objectives

Delivery Approach



Bespoke Approach/Offering -

- The delivery is customised as per AWE's internal processes and systems.
- Case studies based on AWE's real life projects.
- Delivery on day release with location flexibility .

Questions

Q&A