T-LEVELS | Institute for Apprenticeships & Technical Education

T Level Technical Qualification in Engineering, Manufacturing, Processing and Control

Employer-Set Project (8730-034)

Provider Guidance Autumn 2023

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Introduction

The Employer-Set Project assessment is a project made up of a number of tasks, based on a real-life work-based problem. The assessment is designed to allow candidates to show how they can tackle problems using the Core knowledge and skills.

This approach to assessment emphasises to candidates the importance and applicability of the full range of their learning to industry practice.

The Employer-Set Project is based around a brief which provides information on an engineering requirement and specific relevant details and resources. Candidates have to draw on their Core knowledge and skills and independently select the correct processes and approaches to take to provide a solution and the evidence specified in the project brief.

During the learning programmed, it is expected that tutors will have taken the opportunity to set shorter, formative tasks that allow candidates to independently use the learning they have covered so far. Experience of drawing information together from across the Core will help prepare candidates so that they are familiar with the expectations of the Employer-Set Project.

Candidates should be made aware during learning of what the Assessment Objectives (AOs) are and how they are implemented in marking the Employer-Set Project, so that they will understand the level of performance that will achieve high marks. Details of the AOs can be found in the qualification specification document.

Candidates should not be entered for the assessment until they have covered all the knowledge and skills covered in the Core content of the qualification, so that they are in a position to complete the Employer-Set Project assessment successfully.

Task schedule summary

The tasks within the project are designed to be scheduled and taken in order, due to the dependency of evidence being generated in one task being used by candidates in the next. For example, the (evidence type) produced in task (1) is required for completion of task (2) therefore task (1) must be completed before task (2) can be attempted.

The tasks are issued separately to candidates but they are able to retain the brief and scenario throughout the duration of the assessment time. Candidates are not permitted to return to tasks after they have been completed within the assessment time.

Candidates should be provided with 30 minutes of non-assessed time at the start of the first assessment session to read and review the brief, before being provided the first task.

Task		Conditions	Evidence produced	Evidence submitted?	Timings	Marks available
1	Research	Supervised/ controlled	Research notes, list of references /sources	Yes	3 hours	15
2	Report	Supervised/ controlled	Written report	Yes	4 hours	18
3	Design	Supervised/ controlled	Orthographic dimensioned drawing X2, design calculations, reflective notes	Yes	6 hours	24
4	Present	Supervised/ controlled	Presentation materials (slides, handouts etc.), video recording of presentation, Presentation Q&A record	Yes	2.5 hours	24
				Total	15.5 hours	81
					Maths, English and digital skills*	9
					Total marks	90

*10% of the marks (i.e. 9 marks) are allocated to maths, English and digital skills across all tasks.

Should the candidate make an error that is further compounded through the inter-dependent nature of the tasks and carry through that error, the marker would penalise the candidate only once. Candidates can use evaluation within later task responses to address issues they have identified.

Note on timings

- Task 4 – The candidate is allocated a 2-hour session in order to create the presentation and allocated half an hour to deliver the presentation and answer questions from the audience.

Compliance with timings

The timings provided within the project **must** be adhered to. They refer to assessment time, not any additional setting up the provider needs to carry out to create an appropriate assessment environment. It is the provider's responsibility to plan sufficient assessment sessions, under appropriate conditions, within the Employer-Set Project assessment window, to allow candidates reasonable time to complete the assessment tasks.

Assessment windows and timetabling

Details of assessment windows and approach to timetabling is detailed within the associated TQ specification document. At the opening of the scheduled assessment window, providers will be able to securely access the assessment materials from the City & Guilds website. It is at this point that the project brief can be released to candidates at the start of their first controlled assessment session. At this point, the candidate guidance document can also be released to candidates.

Overview of document audience

	Approved audience	
Document	**Provider Staff**	**Candidate**
Project brief	✓	✓ Under assessment conditions
Task 1 – Research	✓	
Task 2 – Report	✓	✓ Under assessment conditions, **once the previous task has been submitted**
Task 3 – Design	✓	
Task 4 – Present	✓	
Candidate guidance	✓	✓
Provider guidance	✓	✗
Declaration of authenticity	✓	✓
Evidence Checklist	✓	✗
Header Templates	✓	✓
Presentation Q & A Record	✓	✗

Internet access

Where internet access is allowed as part of a task (e.g. for research purposes) candidates must be advised that this is the case and reminded of the importance of submitting their own work and the seriousness of plagiarism, malpractice and collusion. Candidates should be advised that their browser history can be monitored and checked.

Where candidates are allowed the use of computer equipment, but not the use of the internet for a task, equipment should be provided with internet capability disabled (e.g. Wi-Fi disabled, machine disconnected from network etc.).

Use of Artificial Intelligence (AI)

Candidates should be reminded that the purpose of this assessment is to reflect their own abilities at responding to and generating evidence for the tasks. AI misuse constitutes malpractice which may result in malpractice sanctions for the candidate involved. Centres should ensure candidates are aware of the guidance on the use/misuse of AI.

What is permitted

AI may be used by a candidate as a source where use of the Internet is allowed for a research task or where production of evidence is allowed outside of controlled/supervised conditions. The candidate must be able to demonstrate that the work is their own. Where candidates use AI, they must acknowledge its use and show clearly how they have used it. How candidates have decided to use it could impact on the overall mark they are allocated.

What is not permitted

AI misuse is where a candidate uses an AI tool in an assessment or fails to appropriately reference it in an assessment where internet use is permitted. Examples include the following:

- Copying sections of AI-generated content so that the work is no longer the candidate's own will be treated as plagiarism.
- Copying whole responses of AI-generated content will be treated as plagiarism.
- Any use of AI which means candidates have not independently demonstrated their own attainment is likely to be considered malpractice.
- Failing to reference use of AI tools when they have been used as a source of information.
- Incomplete or poor referencing of AI tools.
- Submitting work with intentionally incomplete or misleading references or bibliographies.

AI misuse constitutes malpractice as defined in the JCQ Suspected Malpractice: Policies and Procedures (https://www.jcq.org.uk/exams-office/malpractice/).

We encourage providers to read and reference this guidance. The malpractice sanctions available for the offences of 'making a false declaration of authenticity' and 'plagiarism' include disqualification.

Task-specific requirements and considerations

General guidance

- The project brief and associated brief documents should be released to candidates at the start of the first scheduled task assessment. Candidates should be provided with 30 minutes of non-assessed time at the start of this session to read and review the brief, before being provided the first task. It must be made clear to candidates when the 30 minutes non-assessed reading and review time starts and ends.
- The individual tasks should be released to candidates at the start of each scheduled assessment session.
- Candidates are not permitted to bring any existing notes or materials completed prior to the assessment into any of the assessment sessions.

- Candidates are permitted to have copies of their final evidence from previous tasks in subsequent assessment sessions. The use of this evidence is solely to support candidates to refer to previous work. The purpose of only providing copies is to ensure that candidates are unable to rework any of their previous responses.
- When working under supervised conditions for longer sessions, breaks can be facilitated outside of the controlled conditions, ensuring the room is locked and all candidates have vacated once the break begins. All materials must be kept securely during the break.
- If the task completion runs over more than one session (see note on timings above), candidates must be reminded that no assessment information can be shared/discussed with other candidates.
- There are no templates / proformas for candidates for completion of the tasks within this version of the Employer-Set Project.
- Where evidence is created using software which has the potential for cloud-based retrieval / sharing (e.g. CAD drawings) this feature should be disabled where possible (e.g. in software settings or through restriction of internet connection). Where not possible candidates must be reminded that the evidence generated for the tasks can only be produced within the scheduled assessment times and also of the implications of sharing or plagiarising content from cloud-based content.

Task 1

- Candidates have been provided 30 minutes additional reading time at the start of Task 1 before they begin the assessment. This should be used to read the Project Brief and associated brief documentation and is not included in the assessment time allocated to Task 1. There is no opportunity for candidate questions / tutor answers during this initial 30 minutes – it is solely for reading.
- Candidates should have access to the internet in order to conduct research. See note above on internet access.
- Candidates may wish to watch videos as part of their research and should be allowed headphones to allow them to do this without distracting others.
- The research notes will typically be 1500 words.

Task 2

- Candidates can choose if they wish to include internet downloads from standards such as BS EN DIN, ASME or ISO, Steel Stockholder data sheets, Original Equipment Manufacturers (OEM) catalogues showing tooling aids and basic design sketches used in Task 1 to illustrate their written solution if desired and support their rationale. For this reason, candidates may have internet access for this task. See note above on internet access.
- The written report will typically be 2000 words.

Task 3

- Candidates do not have to use CAD to present their findings.
- Candidates should **not** have internet access for this task. See note above on internet access.
- The submission for this task will typically be two A3 drawings and two A4 sides of supporting calculations, with reflective notes.

Task 4

- Candidates **must** use digital technology to present their findings. Candidates can choose the format/program they want to use for their presentation (e.g. PowerPoint, Keynote etc.).
- Candidates must **not** have access to the internet. See note above on internet access.
- Candidates' presentations should be scheduled and timed to include time for questioning following the presentation within the 30 minutes allocation – as detailed in the task the time should typically be split with 20 minutes for the presentation and ten minutes for responding to questions.
- It should be clear to candidates how much of their presentation time has been used up, for example through the use of a timer, or clarification as they start that their session will end in 30 minutes time (e.g. indicating to candidates on a mutually visible clock and confirming the time the session will end). Where candidates are coming to the end of their allocated time and have not yet started the questioning element of the presentation/responded to questions this should be indicated to them.
- It is important that providers consider the impact of cohort size on the scheduling of the presentation task. Larger cohorts may need to be split into two groups in order to accommodate presentations taking place shortly after the preparation session. Where necessary, presentation preparation/delivery sessions can be timetabled over a number of days. All candidates are required to complete a Declaration of Authenticity along with project evidence submission (be it physical i.e. written/drawn, or ephemeral i.e. presentation).
- The presentation must take place in a room which is quiet and free from distractions and there is not the risk of others walking in/interrupting the presentation.
- Candidates cannot observe other candidates' presentations.

Question and answers

All candidates must be asked **three** questions following their presentation (probing or clarification questions not included). The nature of the questions should relate to the content of their presentation.

Questions should be posed from the perspective of the presentation audience as outlined in the task (e.g. client, end customer) and should allow candidates to expand upon and reinforce points covered in their presentation (responses to questions generate evidence for 'AO2b communication'). It is also an opportunity to generate evidence of the candidate's ability to review and realise the project outcome (AO5a and AO5b), evaluating their own performance.

Questions must be contextualised to the individual candidate's presentation and focus on the reasons for selecting specific actions, the alternatives considered as well as any other factors considered. Below are examples which providers should use;

- *What did you find the most challenging aspect of our brief?*
- *What are your ideas on the best way to approach the design?*
- *What additional information would have been useful for us to have provided in the project brief?*
- *What manufacturing processing did you consider?*
- *Why did you choose the type or style of gauge as your final design?*

Those asking the questions may indicate whether the question is being posed as if from a technical or non-technical perspective (as this may influence the detail, wording etc of the candidate's response).

Tutors must only use open questions to try and explore the candidate's solution further allowing the candidates to elaborate within their response. Closed question which gain a straight forward answer of 'Yes/No' must not be used. Tutors should be curious to explore the candidates understanding further and have awareness of any conscious or unconscious bias they may have due to the relationship with the candidate.

The presentation and questioning will be recorded on the video; however, a record of questions asked, and responses must be included on the 'Presentation Q & A Record'.

Types of questions that candidates will face should be covered as part of course delivery. This will ensure candidates are as best prepared as they can be when faced with this type of assessment.

Video evidence
Video recordings of presentations and Q&A must be in an appropriate format with audible sound levels, well-lit etc. as per the advice detailed in the Employer-set Project guidance available on the resource hub. It is recommended that providers use a second microphone, which is place near the candidate to ensure they can be heard within the video.

The assessment materials for each Employer-Set Project identify the minimum candidate and assessor evidence requirements to support marking. Ephemeral evidence (e.g., areas of candidate performance that would be hard to capture with photographs and/or assessor notes alone) plays a significant part in Task 4 of the Employer-Set Project.

In Task 4 there is a requirement to submit video evidence, the evidence must meet the following minimum requirements, in order to be considered by markers:

- As per the relevant section of the ***TQ Employer-Set Project Assessment process guide***, assessors must ensure that this evidence can be easily matched to the correct candidate and task, is clearly shot, well-lit and shows the areas of particular interest in sufficient detail and clarity for assessment (i.e. filmed at appropriate points in production, showing accuracy of measurements where appropriate).

Where video evidence is unclear, or does not meet these minimum requirements, markers will disregard it.

Candidate evidence

The sections in each task:

- ***What you must submit on completion of this task*** and
- ***Additional evidence of your performance that must be captured for marking***

detail the typical evidence to be submitted for external marking.

Guidance documents on the marking process are available on the City & Guilds website. These provide further information on preparing for assessment, evidence gathering etc. and must be referred to when planning and carrying out assessment.

While technological methods which support the capturing or creating of evidence can be helpful, the final evidence must be converted to a suitable format which cannot be lost/deleted or amended after the end of the assessment period (e.g. screen prints, pdf files).

Considerations around tracking authenticity and potential loss of material hosted on such platforms during assessment is the provider's responsibility.

Where the minimum requirements have **not been submitted as a result of the candidate not completing the evidence requirements of the tasks** or the **quality of candidate evidence is insufficient** to make a judgement, any judgment will be based on the evidence that *has* been submitted. **Where this is insufficient to provide a mark, a mark of zero may be given.**

Task guidance

Candidates should be advised that approximate word counts / page lengths have been given within the task guidance in order to act as a guide to support the completion of the tasks. These are provided as a guide only, and there will be no penalisation of marking based on if the word count / page length is above or below the indicative guidance provided.

Preparation of candidates

Candidates should be aware of which aspects of their performance (across the AOs) will give them good marks in assessment. This is best carried out through routinely pointing out good or poor performance during the learning period, establishing next steps for improvements and through formative assessment.

During the learning programme, direct tutor instruction in how to tackle practical tasks through modelling, support, guidance and feedback are critical. However gradual removal of this support is necessary in preparation for summative assessment. This supported approach is **not** valid for summative assessment.

The purpose of summative assessment is to confirm the standard the candidate has reached as a result of participating in the learning process. Candidates should be encouraged to do the best they can and be made aware of the difference between these summative assessments and any formative assessments they have been subject to. Candidates must not have access to the full (or sample) marking grids during the assessment.

Guidance on assessment conditions

The assessment conditions that are in place for this Employer-Set Project are to:

- ensure the rigour and consistency of the assessment process
- provide fairness for candidates
- give confidence in the outcome.

They can be thought of as the rules that ensure that all candidates who take an assessment are being treated fairly, equally and in a manner that ensures their result reflects their true ability.

These conditions do not affect any formative assessment work that takes place, although it is advised that candidates are prepared for the conditions they will need to work under during summative assessment.

The evidence for the tasks that make up this Employer-Set Project must be completed under the specified conditions. This is to ensure authenticity and prevent malpractice as well as to assess and record candidate performance for assessment. Any aspect that may be undertaken in unsupervised conditions is specified. It is the provider's responsibility to ensure that local administration and oversight gives the tutor sufficient confidence to be able to confirm the authenticity of the candidate's work.

Each candidate must submit one ***Declaration of Authenticity*** at the end of the project to confirm the assessment has been delivered in line with the assessment conditions. This

must then be signed by a representative at the provider. If this form is not signed, results cannot be issued until it's confirmed the assessment has been undertaken in accordance with the conditions.

Security and authentication of candidate work

Candidate evidence must be kept secure to prevent unsupervised access by the candidate or others. Where evidence is produced over a number of sessions, the tutor must ensure candidates and others cannot access the evidence without supervision. This might include storing written work or artefacts in locked cupboards and collecting memory sticks containing evidence produced electronically at the end of each session.

At the end of each assessment session, the task evidence should be treated as final and submitted by the candidate and retained securely by the provider for external marking. There should be no opportunity for the candidate to rework this evidence following initial submission. The candidate's final submitted evidence should be copied (either in soft or hard copy format, depending on how the evidence has been produced), with the original retained securely by the provider for external marking, and, where permitted, the copy provided to the candidate to allow them to refer to for support in the subsequent assessment sessions. Copies of the candidate's work should be retained in the provider between different assessment sessions. The original evidence will be retained securely by the provider in locked cupboards to ensure that the evidence is not amended following initial submission by the candidate.

Where a candidate naturally develops their responses, e.g., an early idea in Task 1 is further developed with additional ideas or a more refined in subsequent tasks, then this should be captured within the task where the candidate developed the revision/refinement. Candidates can use evaluation within later tasks to outline how and why their thought process may have changed as they further undertook the project.

After the production of evidence, both the tutor and candidate must sign declarations of authenticity.

Where the candidate or tutor is unable to or does not confirm authenticity through signing a declaration form, the work will not be accepted and a mark of zero will be given. If any question of authenticity arises, the provider may be contacted for justification of authentication.

Accessibility and fairness

Where a candidate has special requirements, tutors should refer to the *Access arrangements and reasonable adjustments* section of the City & Guilds website.
Tutors can support access where necessary by providing clarification to **any** candidate on the requirements or timings of any aspect of this Employer-Set Project. Tutors should **not** provide more guidance than the candidate needs as this may impact on the candidate's grade - see guidance and feedback section below.

All candidates must be provided with an environment, time frame and resources that allows them reasonable access to the full range of marks available.

Guidance and feedback

Guidance must only support access to the project and must not provide feedback for improvement. The level and frequency of clarification and guidance must be made available for external marking.

The level and frequency of clarification and guidance must be made available for external marking via the Declaration of Authenticity.

Tutors must not provide feedback on the quality of the performance or how the quality of evidence can be improved. This would be classed as malpractice. However, this does not apply if the tutor asks questions as part of the assessment process. Such requirements will be specifically stated within task provider guidance.

Tutors should however provide general reminders to candidates throughout the assessment period to check their work thoroughly before submitting it, and to be sure that they are happy with their final evidence as it may not be worked on further after submission. Candidates can rework any evidence that has been produced for each task during the time allowed.

The information on the guidance received and captured on the Declaration of Authenticity is part of the evidence that will and must be taken into account along with the other evidence for the task when being externally marked. The marker will decide if the guidance the candidate has required suggests they are lacking in any area and consider the severity of the issue when applying the marking criteria. The marker must record where and how guidance has had an impact on the marks given, so this is available should queries arise at appeal.

What is, and is not, an appropriate level of guidance

- If a candidate is not on course to be able to submit the full range of evidence required, the tutor should **only** prompt the candidate by asking them to confirm whether they have covered all the requirements of the assessment.
- A tutor **must not** provide guidance that the candidate's work is not at the required standard or how to improve their work. The tutor **should not** explicitly state any specific areas that have been missed as this would potentially disadvantage other candidates. In this way, candidates are given the chance to identify and correct any errors on their own, providing valid evidence of knowledge that will be credited during marking.
- The tutor should offer the **minimum** amount of support via prompts throughout the assessment to ensure that the candidate's own performance is being fairly assessed without impacting on marks awarded.
- A detailed account of prompts by the tutor to the candidate **must** be recorded on the relevant form to be taken into consideration during external marking.
- If a tutor has to offer further guidance or clarification after they have prompted the candidate as detailed above, this should be done **with caution** and should not detail how a candidate can improve and should **only** reinforce the requirements of the task in order to support access to the project.
- A detailed account of further clarification of task and project requirements by the tutor **must** be recorded on the relevant form to be taken into consideration during external marking.
- The tutor **must not** produce any templates, pro-formas, work logs etc. Where instructed to do so, these materials must be produced as specified and contain no additional guidance. If templates are provided by the Awarding Organisation, as part of a project task they must **not** be adapted but can be provided to candidates either electronically or as paper based.

Overview of task requirements

	Task			
Conditions	**1**	**2**	**3**	**4**
Candidates will have access to a computer with relevant software (i.e. word processing, spreadsheets, presentation software) and CAD systems	✓	✓	✓	✓
Candidates will have access to the internet	✓	✓	×	×
Candidates will have access to the project brief document	✓	✓	✓	✓
Candidates will have access to copies of their previous task outputs (for review purposes only)	N/A	✓	✓	✓
All work must be completed independently	✓	✓	✓	✓
During any breaks, all materials must be kept securely	✓	✓	✓	✓
Candidate work will be saved securely for return to the candidate for use in future tasks*	✓	✓	✓	×
No assessment materials to leave the room at any point of the assessment	✓	✓	✓	✓

* Following tasks, work should be saved securely for return to candidates for use in future tasks within this project. This could be facilitated through the use of memory sticks or a specific location on a secure drive for work to be saved on.

Maths, English and digital skills

Throughout the completion of the tasks within the project candidates will generate evidence towards their maths, English and digital skills.

Maths	3 marks available
English	3 marks available
Digital	3 marks available

10% of the marks available for the project are allocated to maths, English and digital skills – with marks available for allocation across the tasks e.g. evidence from tasks 1 – 4 will be used to allocate 1, 2 or 3 marks for English.

This allows for a holistic approach to the marking of these elements which may be evidenced across the response to the project.

Get in touch

City & Guilds Technicals Quality Team

We are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

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