Why it makes sense to apply for EI approval of your programme

Guidance notes for institutions applying for

Academic Approval for EngTech

About the Energy Institute

Energy defines modern life. It lights, heats, and cools our businesses and homes, it gets us from A to B, and it is increasingly safe, sustainable, reliable and affordable.

But the story of energy is only part told. Achieving net zero at the same time as opening up access for the world's growing population is one of the most pressing challenges facing humanity. More than ever, we need ingenious people - innovators, entrepreneurs, scientists, and engineers – to make all of this possible and shape our energy future.

The Energy Institute (EI) is the professional membership body bringing global energy expertise together. Our mission is to create a better energy future - for our members and for society - by accelerating a just global transition to net zero.

We're a unique network with insight built over a century and spanning the world of energy, from conventional oil and gas to the most innovative low carbon and energy efficient technologies. We gather and share essential knowledge about energy, the skills that are helping us use it more wisely, and the good practice that keeps it safe and secure.

We articulate the voice of energy experts, taking the know-how from members around the world to the heart of the public debate, and building a powerful, inclusive professional network. And we're an independent, not-for-profit, safe space for evidence-based collaboration, an honest broker between industry, academia, and policy makers. The EI is here for anyone who wants to better understand or contribute to the extraordinary energy system on which we all depend, in the interests of our global future.

If you offer a programme that you are proud of, that's designed to deliver the energy professionals of the future, and if you are passionate about delivering quality of learning experience and delivery, it makes sense to apply for EI recognition.

What can we offer?

The EI approves courses for EngTech status under its license awarded by the Engineering Council.[1] We see our relationship with accredited providers as one of partnership, bringing close connections with the energy sector, opportunities to network and progress for your students, staff and graduates, and promotional opportunities for you, your institution and the programmes and quality learning experiences you offer.

What are the benefits?

Show your programme meets the energy and engineering sector's standards

EI approval gives independent assurance that your technician level programme has met the rigorous quality standards and outcomes set by the energy and engineering sector. It acts as a badge of quality for students looking to develop a career in energy and/or engineering and is sought out by employers across the sector.

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[1] Approval is offered for EngTech. Accreditation is offered for the following: MEI, Chartered Energy Manager, CEng and IEng. The process for accreditation and approval are broadly similar, but there are some differences in relation to what you will need to demonstrate as part of your application, and what the statuses attest to. See our separate guide if you are thinking of applying for accreditation for other programmes.

Make sure your programme stands out from the crowd

As part of your EI approval you'll be entitled to use the EI approval logo in your promotional material and your programme will receive a free listing on the EI website. The Engineering Council's Database of Technician Qualifications also advertises programmes and qualifications that have been approved for EngTech. There are opportunities for your institution to raise its profile as part of the EI community through getting involved in our committees, volunteer network and contributing to our magazines and knowledge resources.

Help your students on the pathway to professional qualifications

As a Learning Affiliate (a prerequisite for approval) your students will be get free Student membership for the duration of their studies, and opportunities to connect with the energy sector, internationally and locally. Students completing approved programmes have a more straightforward route to EngTech.

Develop richer connections with the energy sector

EI approval gives you and your students access to a wide network of energy professionals from all across the energy sector, including local branch networks and EI wide communities and groups.   If members of your team are not already EI members, they can sign up at a discounted rate.

Get access to knowledge resources

Gain full access to our information services covering every aspect of the energy sector, including the Energy Matrix, our library and e-library services, to supplement your students' studies

The EI partnership ethos

The EI has a partnership model of accreditation and approval. Our aim is to create a strong and positive relationship, working together with institutions for mutual benefit, with a shared goal of developing capability in energy for the benefit of society.

Naturally, we expect our institutions to care about and be committed to the EI and share our aims and values in promoting knowledge skill and good practice and supporting individuals in moving forward to a great career in the sector.

We ask for providers to get involved with the EI in the local area, and encourage Student membership, and for at least two of the staff team to be professional members of the EI (TMEI, MEI or FEI). We can also provide Affiliate membership for up to two further members of your team (nominated by you) so that we can keep communication flowing, making sure that your staff team and students don't miss out on opportunities, and to help you build your connections.

We look for evidence of your engagement with the EI as a component of the approval process, and this will also be reviewed when we come to look at the re-approval of programmes for a further period, so that we can make sure that everyone is getting full benefit from the partnership and there is genuine commitment from staff and students.

Learning Affiliate membership

To apply for approval of your course, you will first need to sign up for Learning Affiliate membership for your department. Learning Affiliate membership provides a simple way for your staff and students to begin their relationship with the EI and enables them to get the benefit of your partnership with the EI from day one.

Your Learning Affiliate status includes free Student membership for your students for the duration of their studies, giving them access to our weekly online magazine, New Energy World, newsletters, local branches and networks, reductions on publications and training courses, and discounts on events (plus exclusive access to some member only events).

Your staff will also get access to news and discounted services at our group member rate. There are opportunities for your institution to raise its profile as part of the EI community through getting involved in our committees, volunteer network and contributing to our magazines and knowledge resources.

You can take up Learning Affiliate status purely for the benefits it brings to staff and students, or as the first step on your accreditation or approval journey.

About EngTech approval

What is an Engineering Technician (EngTech)?

Engineering Technicians qualified through the EI are experienced professionals who are adept at applying proven techniques and procedures to the solution of practical energy engineering problems. They may contribute to the design, development, manufacture, commissioning, decommissioning, operation or maintenance of products, equipment, processes or services and will have supervisory or technical responsibility. They have the experience and know-how to work effectively and creatively within defined fields of energy technology, whether that be renewables, oil and gas or other energy engineering contexts.

What does approval for EngTech mean?

Under its license with the Engineering Council the EI can approve programmes against a set of standards for EngTech status. The approval process focuses on the overall design, the depth and range of coverage in a programme, and the validity and reliability of the way in which it is assessed. It shows that your programme is of the appropriate level, relevance and focus to help individuals go on to achieve EngTech; it does not necessarily assure that every candidate completing your programme has the required underpinning knowledge and understanding.

To be eligible for EngTech approval, your programme will need to be delivered at or above:
- Level 3 of the Regulated Qualifications Framework (RQF) in England and Northern Ireland or,
- Level 6 of the Scottish Credit and Qualifications Framework (SCQF) or,
- Level 3 of the Credit and Qualifications Framework for Wales (CQFW).
- If your programme lies outside of these frameworks, it needs to be demonstrated at a comparable level.

You will also need to demonstrate how your programme meets the required output standards for EngTech. We can grant approval for periods of up to 5 years.

Approval available in relation to engineering titles awarded by the EI under licence from the Engineering Council

If your institution offers the following qualifications with a clear focus on energy	…at the following level or levels in the qualifications framework…	…we can consider your programme for accreditation/approval in relation to the learning outcomes for
National Certificates/Diplomas and equivalent qualifications	Level 3/4	Engineering Technician Approval
Higher National Certificates and equivalent qualifications	Level 4/5	Engineering Technician or partial IEng[2]
Foundation degrees and equivalent qualifications in engineering	Level 5	Engineering Technician or partial IEng

How does this differ from accreditation?

The EI also offers accreditation for a variety of programmes including:
- two unique titles under its Royal Charter, Member of the Energy Institute, and Chartered Energy Manager
- Chartered and Incorporated Engineer which, like EngTech approval, are awarded under license from the Engineering Council.

Engineering accreditation has a different emphasis to approval in that it confirms that educational programmes provide some or all of the underpinning knowledge, understanding and skills for eventual professional engineering registration in a particular category. Under Engineering Council policy, approval is granted to EngTech level programmes, and accreditation (such as for IEng and CEng) to higher level degree programmes such as BEng (hons) or MEng programmes. The process for accreditation and approval through the EI is very similar, but you will need to demonstrate different outcomes and provide appropriate evidence for each.[3]

About our approval criteria

In addition to demonstrating that your programme delivers the output and other requirements relevant to a title, during the approval process the EI's Accreditation and Approval Panel will look at the following:
- the relevance of the course/programme to the EI and its remit under the Royal Charter (i.e. its energy related focus and content)
- the quality and standards of the course/programme
- the teaching/training team and their relevant expertise
- the learning facilities available to students
- the value of the course in terms of students' education and professional development
- the validity and reliability of the assessment employed
- the learning outcomes, programme specification and module descriptors
- quality assurance arrangements, such as third-party recognition

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[2] Please see the Guidance for Accreditation for details on IEng accreditation

[3] See our accreditation guidelines for further details https://www.energyinst.org/membership-and-careers/accreditation

All institutions/organisations submitting programmes for consideration by the EI must therefore, demonstrate that they have:

1. teaching staff who are
   a. qualified to appropriate standards
   b. have the necessary ability to teach/train to the required level
   c. are suitably vocationally motivated
   d. are committed to quality
2. appropriate facilities which are adequately equipped for the needs of the programme and are accessible to the students/trainees
3. a clear and active commitment to equal opportunities, inclusivity and accessibility
4. appropriate arrangements for liaison with industry which are well defined and of relevance to students/trainees; this includes mechanisms to ensure that programmes are kept under review and continue to meet the changing needs of the energy sector.

Most importantly of all, that they meet the output standards in AAQA. The standards approved by the Engineering Council are summarised in Appendix A. Please be aware that they are reviewed regularly by the Engineering Council.

We also ask that institutions commit to the following as a condition of their approval:

- promote the EI as a membership body to staff and students
- use the 'Approved Course' logo on promotional materials and website
- have a minimum of two EI professional members (FEI, MEI, TMEI) of the teaching team who hold engineering registrations
- maintain Learning Affiliate membership for the duration of the approval period
- appoint two department representatives (one admin and one academic) to act as points of contact for the EI
- notify the EI of any significant changes to the programme as they occur

A full list of the Terms and Conditions of accreditation and approval can be found on the EI website at https://www.energyinst.org/terms.

Applying for Approval of Your Programmes (including re-approval)

The process of review and approval is overseen by the EI's Accreditation and Approvals Panel (AAP). Our Accreditation and Approvals Team will guide you through the process and answer any questions you have along the way.

Step 1	Sign up as a Learning Affiliate
Step 2	Complete the **Initial Submission Form**. The initial submission form asks you for a basic overview of the programmes you wish to approve and focuses on engagement with the EI. This form will be referred to the Accreditation and Approval Panel (AAP) for approval
Step 3	If we have all the information we need and are able to proceed, we will invite you to complete the **Main Submission Form** (details below)
Step 4	Your main submission will be **reviewed by a member of our Accreditation and Approvals Panel** who will provide feedback and we will let you know if we are able to move forward or if there is any other information or clarification you need to provide.

Step 5	Once all information has been received, we will contact you to arrange a mutually convenient time to undertake an **approval visit** (currently the EI requires a visit to take place in order to award EngTech status)
Step 6	Our **Visiting Panel** will normally provide informal feedback on the outcome of the visit at the end of the day. A report will be written by a member of our team in conjunction with the Panel Chair and will be sent to you so that you can check for factual accuracy. You will also have the opportunity to respond to any requirements or recommendations which the Panel has identified in the report.
Step 7	The report, with any comments you have made, will be referred to the next meeting of the **Accreditation and Approvals Panel** who will review the findings of the visit and confirm whether approval is granted, and determine whether it will be granted subject to any requirements or recommendations, and the period of approval as appropriate .
Step 8	A letter will be sent to you confirming AAP's decision and any actions required. A certificate will also be sent once approval has been awarded.

What information will we need to submit as part of our application?

The main submission form includes full guidance on the information you will need to submit as part of your application and the templates you'll need to use. There are a number of standard pieces of information you will be asked to submit electronically alongside the main form, including:

- your project and student handbooks
- the qualification or programme specification for each programme you are submitting
- module descriptors you provide for your students and the expected learning outcomes for each major topic of student coursework, and how they are assessed and graded
- an output standard matrix for each of the programmes you are submitting (the output standards can be found at the end of this document in Appendix A)
- detailed mapping of the energy content for each programme
- the external examiners report for each of the last three years (if applicable)
- the Internal Programme Review Reports for each of the last three years
- summary CVs from academic staff, including qualifications, research and industrial activity, professional body activity and membership status
- details of the staff registered as professional members with the Energy Institute
- minutes from the Industrial Liaison Panel meetings (if applicable)
- minutes from the Student Staff Liaison Committee (if applicable)

At the visit

You will need to make a range of material ready for our panel to view during a visit. If we conduct a virtual or hybrid visit, you will be asked to submit some of this material electronically six weeks in advance of the 'visit'.

We will need to see the at least the two most recent cohorts of student output material and assessments including information such as:

- Marked examination scripts
- Marked samples of coursework (with feedback given to students)
- Individual projects and dissertations (including marks and marking schemes used in the assessment). They should include a sampling of projects spanning the full range of marks

Please note that this list is not exhaustive. You will be provided with full guidance on what the Visiting Panel will need to see ahead of the visit.

About the approval visit

The purpose of the visit is to verify that the programmes are operating as described in the documentation you have provided and to meet with staff and students to discuss the programmes in more depth. It's also a great opportunity to get to know you better and discuss how we can develop our partnership. The visiting panel typically includes two members of our AAP, an industry representative and a secretariat from the EI.

As part of the visit, we will want to:

- meet with staff, including the Head of Department, programme leaders and senior staff
- meet with students at a variety of stages in the programme, and graduates
- tour facilities, including laboratories and equipment
- view your virtual learning environment, to which you will need to arrange access

We will provide you with further information about the visit once we have reviewed your main submission.

In advance of the visit we will contact you to:

- agree the agenda and the information we would like you to provide for panel review
- ask you for details of the people who will be attending from your institution (staff and students)

We will provide more information ahead of the visit about the format for the day and the items you will need to provide for the Panel. The Panel will give you feedback on the day. We will then prepare a report on the findings of the visit and you will be given the opportunity to make any factual amendments and comments if you wish before the report is taken forward to the EI's Accreditations and Approvals Panel for a final decision.

Confirming approval

The aim of approval is to provide a structured mechanism which evaluates and improves the quality of provision. It's a peer review so we want to provide you with constructive feedback to help you develop your programmes.

As part of the report you may see commendations, requirements and recommendations.

- We may make **commendations** where we find that there is good practice or notably high standards or innovation.

- **Requirements** are conditions placed upon the grant of approval, with deadlines by which you will need to take action. The period of approval may in many cases begin before these actions are completed, but if they are not met, approval of your programme may be suspended.
- **Recommendations** are often suggestions for ways in which we think that your programme could be developed or enhanced or even ways we could work together. Recommendations are not mandatory, but we will expect you to demonstrate that you have considered implementing the recommendation when we consider the programme for re-approval.

What will it cost?

A fee of £1,000 will be charged for face-to-face visits. We will do our best to limit visit panel expenses to £1,000 but if they exceed this, an invoice for the difference will be sent to the university after the visit. Please note that this fee is separate to that of the Learning Affiliate fee, which is payable on an annual basis.

The EI reserves the right to cancel a visit if the initial expense payment has not been settled one week in advance of the visit.

Frequently asked questions

How long does it take to get programmes reviewed for approval?

The length of time it takes to gain approval can vary. It very much depends on when you submit your application, whether it is complete and well presented, and whether there are any issues of clarification as we work through the process. It will also depend on when the meetings of the Accreditation and Approvals Panel are due to take place.

However, as a general guide, the application process can normally be completed within 6-12 months, from your initial submission through to the final decision. If there is a particular date by which you need approval, please plan ahead and submit your application in ample time.

Please be aware that programmes must have been running for **at least six months** before they can be considered for approval.

Can approval be backdated?

Yes, this is sometimes possible, to allow cohorts whose work has been reviewed as part of the recognition process to benefit from the decision. However, if you would like approval backdated you must request this at the time of your application. We are unable to undertake backdating for programmes once the decision-making process for your approval has been completed.

Is the EI able to approve programmes being run outside the UK?

Yes, we can. The same standards, level and learning outcomes will apply wherever the programme is delivered, and where the course you wish us to approve is in engineering, we will need to follow the guidelines set by the Engineering Council within its Registration Code of Practice, and the AAQA in the same way as for UK programmes.

Is the EI able to undertake joint visits with another body?

Yes, if you are applying for approval in relation to an engineering programme, it may be possible to arrange a joint visit. If you wish to request a joint visit involving more than three professional bodies, your application should be made via the Engineering Accreditation Board (EAB). **For more information visit the webpage here.** Please be aware that where visits can be made jointly, decisions about whether to award approval are made by each professional body independently according to their specialist focus, and so the outcome of the visits in respect of each professional body may differ.

What happens where a programme is run at several campuses?

In relation to engineering qualifications, we follow the guidelines set by the Engineering Council. If a university offers the programme(s) being reviewed for approval in partnership, franchises or at multiple campuses, there are a choice of two options.

Either
1. We will need to undertake a successful approval visit at **each** location where the programme is offered in order for approval to be granted; or
2. You will need to satisfy us that all material clearly and unequivocally differentiates the specific delivery locations where the programme is delivered, and which are covered by approval and which delivery locations not covered by approval. You will need to agree with the EI how you will present the status of the programmes approved on degree certificates, transcripts or university issued certificates of approval, in your course material and on your website, and plans for how you will do this, and example materials will need to be submitted as part of your application.

Ask us!

Our staff team are here to help you on your journey through the approvals process. If you have questions about the process or the evidence you will need to provide, or if you would like an informal discussion, please contact us at accreditation@energyinst.org

Further information

- **AAQA** is the Approval and Accreditation of Qualifications and Apprenticeships. This sets out the outcomes which must be met, the requirements for approval, and the evidence that the licensed bodies such as the EI need to seek to confer approved status.
  https://www.engc.org.uk/aaqa

- **The EngTech e-book** More from the Engineering Council about EngTech status and how it can enhance your professional career
  https://www.engc.org.uk/engcdocuments/internet/Website/EngTech%20eBook.pdf

- **Why it makes sense to apply for accreditation of your energy course** Guidance from the EI on applying for MEI, Chartered Energy Manager, CEng or IEng accreditation for your programmes https://www.energyinst.org/membership-and-careers/accreditation

- **UK Spec** is The UK Standard for Professional Engineering Competence. It sets out the competence and commitment required for registration as an Engineering Technician (EngTech), Incorporated Engineer (IEng) or Chartered Engineer (CEng). It also includes examples of activities that demonstrate the required competence and commitment. https://www.engc.org.uk/standards-guidance/standards/uk-spec/

- **CPD Code for Registrants** – this document sets out the Engineering Councils expectations of those who hold a professional registration in engineering. https://www.engc.org.uk/professional-development/continuing-professional-development-cpd/

Appendix A – Learning outcomes – AHEP fourth edition and AAQA first edition

Notes on learning outcomes

The table below presents the learning outcomes for AHEP 4 and AAQA; a version of this with the addition of a note to indicate the level at which each learning outcome must be demonstrated can be downloaded in an A3 table from the Engineering Council website: www.engc.org.uk/aaqa

Note that when consideration is given to accreditation of programmes of further learning no consideration is needed of any 'learning outcome achieved at previous level of study' as accreditation will only apply for individuals who have completed a suitably accredited programme for which the programme serves as further learning.

1. Well-defined problems involve several factors, but with few of these exerting conflicting constraints, and can be solved through the standardised application of engineering science.

2. Broadly-defined problems involve a variety of factors which may impose conflicting constraints, but can be solved by the application of engineering science and well-proven analysis techniques.

3. Complex problems have no obvious solution and may involve wide-ranging or conflicting technical issues and/or user needs that can be addressed through creativity and the resourceful application of engineering science.

4. These learning outcomes are minimum threshold standards and should be interpreted in the context of a particular disciplinary or multidisciplinary engineering practice, and the level of study.

5. An individual who has completed an approved or accredited programme must meet all of the identified learning outcomes, however student learning hours are likely to vary between the five key areas of learning.

6. It is recognised that an approved or accredited programme may develop learning outcome(s) beyond the threshold level, including where learning outcomes are met at the previous level of study, however such additional learning is not prescribed or required for academic accreditation.

7. The learning outcome level required to meet the required programme outcome/registration level is not necessarily that which corresponds with the final year/stage of the programme. Rather, it provides one indication of the earliest programme stage at which the required programme outcome could be met. (As extreme examples, Security (T10-M10) and Lifelong Learning (T18-M18) are defined identically for all registration levels, which implies that they could in principle be met in the first year of an undergraduate programme. These are however AHEP 4 minimum threshold standards, and HEIs may feel that the integrity of their academic programmes would require a more sophisticated approach to security or lifelong learning to be adopted for an MEng than for an EngTech or BEng programme.)

8. The learning outcomes in this document may be a useful reference point when assessing the knowledge and understanding of an individual who does not hold an accredited degree (for example those individuals following sector specific apprenticeships, in-company training programmes, IPD Schemes, etc.).

9. The Engineering Council defines security as 'the state of relative freedom from threat or harm caused by deliberate, unwanted, hostile or malicious acts. It operates on a number of levels ranging from national security issues to countering crime'. See the guidance note at: www.engc.org.uk/security

Area of learning	Engineering Technician	
	National Certificates and equivalent qualifications and apprenticeships approved or accredited as fully meeting the academic requirement for EngTech registration (EngTech)	Higher National Certificates and equivalent qualifications and apprenticeships approved or accredited as fully meeting the academic requirement for EngTech registration and partially meeting the academic requirement for IEng registration (EngTech / Partial IEng)
On successful completion of an approved or accredited programme, an individual will be able to:		
Science and mathematics The study of engineering requires a substantial grounding in engineering principles, science and mathematics commensurate with the level of study.		
Science, mathematics and engineering principles	**T1.** Apply knowledge of mathematics, statistics, natural science and engineering principles to well-defined problems.	**H1.** Apply knowledge of mathematics, statistics, natural science and engineering principles to well-defined problems.
Engineering analysis Engineering analysis involves the application of engineering concepts and tools to analyse, model and solve problems. At higher levels of study engineers will work with information that may be uncertain or incomplete.		
Problem analysis	**T2.** Analyse well-defined problems reaching substantiated conclusions.	**H2.** Analyse well-defined problems reaching substantiated conclusions.
Analytical tools and techniques	**T3.** Use appropriate computational and analytical techniques to solve well-defined problems.	**H3.** Use appropriate computational and analytical techniques to solve well-defined problems recognising the limitations of the techniques employed.
Technical literature	**T4.** Select and use technical literature and other sources of information to address well-defined problems.	**H4.** Select and use technical literature and other sources of information to address well-defined problems.

Area of learning	Engineering Technician (continued)	
	National Certificates and equivalents (continued)	Higher National Certificates and equivalents (continued)
On successful completion of an approved or accredited programme, an individual will be able to:		
Design and innovation Design is the creation and development of an economically viable product, process or system to meet a defined need. It involves significant technical and intellectual challenges commensurate with the level of study.		
Design	**T5.** Contribute to design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet business, customer or user needs as appropriate. This will involve consideration of applicable health and safety, diversity, inclusion, cultural, societal and environmental matters, codes of practice and industry standards.	**H5.** Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet business, customer or user needs as appropriate. This will involve consideration of applicable health and safety, diversity, inclusion, cultural, societal and environmental matters, codes of practice and industry standards.
Integrated/systems approach	**T6.** Apply a systematic approach to the solution of well-defined problems.	**H6.** Apply a systematic approach to the solution of well-defined problems.

Area of learning	Engineering Technician (continued)	
	National Certificates and equivalents (continued)	Higher National Certificates and equivalents (continued)
On successful completion of an approved or accredited programme, an individual will be able to:		

The Engineer and Society
Engineering activity can have a significant societal impact and engineers must operate in a responsible and ethical manner, recognise the importance of diversity, and help ensure that the benefits of innovation and progress are shared equitably and do not compromise the natural environment or deplete natural resources to the detriment of future generations.

Area of learning	National Certificates	Higher National Certificates
Sustainability	T7. Evaluate the environmental and societal impact of solutions to well-defined problems.	H7. Evaluate the environmental and societal impact of solutions to well-defined problems.
Ethics	T8. Apply ethical principles and recognise the need for engineers to exercise their responsibilities in an ethical manner and in line with professional codes of conduct.	H8. Apply ethical principles and recognise the need for engineers to exercise their responsibilities in an ethical manner and in line with professional codes of conduct.
Risk	T9. Identify, evaluate and mitigate risks (the effects of uncertainty) specific to their field of activity.	H9. Identify, evaluate and mitigate risks (the effects of uncertainty) associated with a well-defined project or activity.
Security	T10. Adopt a holistic and proportionate approach to the mitigation of security risks.	H10. Adopt a holistic and proportionate approach to the mitigation of security risks.
Equality, diversity and inclusion	T11. Recognise the importance of equality, diversity and inclusion in the workplace.	H11. Recognise the importance of equality, diversity and inclusion in the workplace.

Area of Learning	Engineering Technician (continued)	
	National Certificates and equivalents (continued)	Higher National Certificates and equivalents (continued)
On successful completion of an approved or accredited programme, an individual will be able to:		

Engineering practice
The practical application of engineering concepts and tools, engineering and project management, teamwork and communication skills. Engineers also require a sound grasp of the commercial context of their work, specifically the ways an organisation creates, delivers and captures value in economic, social, cultural or other contexts.

Area of Learning	National Certificates	Higher National Certificates
Practical and workshop skills	T12. Use practical laboratory and workshop skills to investigate well-defined problems.	H12. Use practical laboratory and workshop skills to investigate well-defined problems.
Materials, equipment, technologies and processes	T13. Select and apply appropriate materials, equipment, engineering technologies and processes to plan and undertake well-defined programmes of work.	H13. Select and apply appropriate materials, equipment, engineering technologies and processes to plan and undertake well-defined programmes of work.
Quality management	T14. Recognise the need for quality management systems and continuous improvement in the context of well-defined problems.	H14. Recognise the need for quality management systems and continuous improvement in the context of well-defined problems.
Engineering and project management	T15. Demonstrate awareness of engineering management principles, commercial context and project management.	H15. Apply knowledge of engineering management principles, commercial context and project management to well-defined problems.
Teamwork	T16. Function effectively as an individual and as a member of a team.	H16. Function effectively as an individual and as a member of a team.
Communication	T17. Communicate effectively with technical and non-technical audiences.	H17. Communicate effectively with technical and non-technical audiences.
Lifelong learning	T18. Plan and record self-learning and improve performance, as the foundation for lifelong learning/CPD.	H18. Plan and record self-learning and improve performance, as the foundation for lifelong learning/CPD.