

National Recognised Standard for Electricians:

EngTech Professional Registration

This Recognised Standard is fully compliant with the UK Standard for Professional Engineering Competence (UK-SPEC) which sets out the competence and commitment required for registration as an Engineering Technician (EngTech) and other categories of professional registration.



UK-SPEC A-E Competences

The Competence and Commitment Standard for Engineering Technicians

Engineering Technicians must be competent throughout their working life, by virtue of their education, training and experience, to:

The examples given below are intended to help you identify activities you might quote to demonstrate the required competence and commitment for EngTech registration. These are not exhaustive. Moreover, you are not required to give multiple examples to demonstrate competence and commitment.

Tell us about your career, education and training. Explain how the experience you have gained has made you more competent.

A

Use engineering knowledge and understanding to apply technical and practical skills.

This includes the ability to:

The reviewers will be looking for evidence that you have the know-how to design and carry out electrotechnical installations or maintenance (inspection, test, fault finding and rectification), and were able to go beyond the immediate requirements and use your initiative and experience to solve a problem or improve a process.

A1

Review and select appropriate techniques, procedures and methods to undertake tasks.

Describe:

- An example of your electrical installation/maintenance work that was successful and the design techniques, planning and methods you used to ensure success, or
- An installation or inspection that you carried out that didn't meet expectations and explain why this was, or
- An example of where you have specified an improvement to an electrical installation, method or process and explain why this choice was made.

A2

Use appropriate scientific, technical or engineering principles.

Drawing from your direct experience, describe where you have, for example:

- Used electrical principles in the design of an electrical installation, or
- Used technical principles to diagnose and correct electrical faults in electrotechnical systems or equipment, or
- Used engineering principles to complete the commissioning of an electrotechnical system

B

Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.

In this context, this includes the ability to:

Explain how you contribute to one or more of these activities.

B1

Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions.

Show an example of how you have used electrical test equipment to monitor and assess the condition of an electrotechnical installation or system, in order to:

- Identify the source of a fault, or
- Identify areas where electrical efficiencies can be made, or
- Make recommendations for improvement or repair

B2

Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact.

Illustrate how you make decisions about:

- What Regulations, people, materials or plant to utilize during the design or maintenance of an electrotechnical installation, or planning inspections of existing installations
- Or how to use new industry techniques, tools and technologies to streamline and improve the efficiency of the installation, commissioning or inspection process
- Or how you ensured the safety of yourself and those around you during any commissioning testing or installation work
- And how you addressed sustainability and minimised the environmental impact

Describe how you have contributed to best practice methods of continuous improvement, eg ISO 9000.

C

Accept and exercise personal responsibility.
The applicant shall demonstrate that they:

Describe an experience or instance where you have had to accept personal responsibility for seeing a process through to completion within agreed targets.

C1
Work reliably and effectively without close supervision, to the appropriate codes of practice.

- Completing challenging tasks successfully within your area of work
- Identifying issues which fall outside of your current knowledge and seeking advice
- Identifying standards and codes of practice relevant to a new task

C2
Accept responsibility for work of themselves or others.

- Fully understanding drawings, permits to work, instructions or other similar documents after appropriate checking, and identifying issues
- Inspecting work carried out by others
- Checking the status of equipment, the work environment and facilities and taking appropriate actions before commencing work

C3
Accept, allocate and supervise technical and other tasks.

- Ensuring that the scope of a task is clear before accepting and/or allocating it to others
- Querying any aspect of a task which is not clear and/or providing an explanation if a query is raised by others
- Learning from your own experience and/or providing constructive feedback when supervising or working with others

D

Engineering Technicians shall use effective communication and interpersonal skills.
The applicant shall demonstrate that they:

This is the ability to work with others constructively, to explain ideas and proposals clearly and to discuss issues objectively and constructively.

D1
Communicate effectively with others, at all levels, in English.

- Contributing to meetings and discussions
- Preparing communications, documents and reports on technical matters
- Exchanging information and providing advice to technical and non-technical colleagues

D2
Work effectively with colleagues, clients, suppliers or the public.

- Contributing constructively as part of a team
- Successfully resolving issues in discussions with team members, suppliers, clients and/or others
- Persuading others to accept suggestions or recommendations
- Identifying, agreeing and working towards collective goals

D3
Demonstrate personal and social skills and awareness of diversity and inclusion issues.

- Knowing and managing own emotions, strengths and weaknesses
- Being confident and flexible in dealing with new and changing interpersonal situations
- Creating, maintaining and enhancing productive working relationships, and resolving conflicts
- Being supportive of the needs and concerns of others, especially where this relates to diversity and inclusion

E

Engineering Technicians shall demonstrate commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.
This shall include the ability to:

This competence is about ensuring that the applicant is acting in a professional manner in their work and in their dealings with others. An Engineering Technician should set a standard and example to others with regard to professionalism.

E1
Understand and comply with relevant codes of conduct.

- E1**
- Demonstrating compliance with your Licensee's Code of Professional Conduct
 - Working within all relevant legislative and regulatory frameworks, including social and employment legislation

E2
Understand the safety implications of their role and apply safe systems of work.

- E2**
- Providing evidence of applying current safety requirements, such as risk assessment and other examples of good practice you adopt in your work
 - A sound knowledge of health and safety legislation, for example: HASAW 1974, CDM regulations, ISO 45001 and company safety policies

E3
Understand the principles of sustainable development and apply them in their work.

- E3**
- Recognising how sustainability principles, as described in the Guidance on Sustainability on page 48, can be applied in your day-to-day work
 - Identifying actions that you can and have taken to improve sustainability

E4

Carry out and record the Continuing Professional Development (CPD) necessary to maintain and enhance competence in their own area of practice.

E5

Understand the ethical issues that may arise in their role and carry out their responsibilities in an ethical manner.

E4

- Undertaking reviews of your own development needs
- Planning how to meet personal and organisational objectives
- Carrying out and recording planned and unplanned CPD activities
- Maintaining evidence of competence development
- Evaluating CPD outcomes against any plans made
- Assisting others with their own CPD

E5

- Understanding the ethical issues that you may encounter in your role
- Giving an example of where you have applied ethical principles as described in the Statement of Ethical Principles on page 47
- Giving an example of where you have applied or upheld ethical principles as defined by your organisation or company

Contextualised Education Requirements: Bespoke to Electricians

Education – Bespoke to Electricians

Education knowledge and understanding are important components of professional competence. For electricians, the required knowledge and understanding for Engineering Technicians can be demonstrated through a Trailblazer Electrotechnical Apprenticeship or industry recognised Advanced/Modern Electrotechnical Apprenticeship (at Level 3 or equivalent); or an appropriate competence based Level 3 qualification such as:

- NVQ/SVQ Level 3 Diploma in Installing Electrotechnical Systems And Equipment (Buildings, Structures And The Environment)
- NVQ Level 3 Diploma in Electrotechnical Services (Electrical Maintenance)
- SVQ Level 3 Electrical Installation at SCQF level 7
- NVQ Level 3 Diploma in Servicing Highway Electrical Systems (QCF)
- NVQ Level 3 Diploma in Servicing and Commissioning Highway Electrical Systems

Many qualifications may be acceptable as evidence that part or all of the necessary competence has been acquired. Please check the Engineering Council's searchable database of approved qualifications and programmes for information about current approved status: www.engc.org.uk/techdb

Some electricians have not had the advantage of formal training, but are able to demonstrate that they have acquired the necessary competence through substantial working experience. Electricians without the types of qualifications described above, may apply for an Individual Assessment. This process, administered by the applicant's institution, includes assessment of **prior learning** and of **current performance**. Evidence of employer recognition of competences and relevant skills may be helpful.

Applicants should consult the IET for advice on the most appropriate option by emailing electricianregistration@theiet.org



The Engineering Council is the UK regulatory body for the engineering profession who are responsible for the UK-SPEC Standard

theiet.org/electrician-engtech