

COMPETENCE AND COMMITMENT STATEMENTS ENGINEERING TECHNICIAN (EngTech MIGEM)



Applicant details

Title	
Surname	
First name	
Middle name(s)	
Date	

The questions and examples of evidence are intended as guidance to help identify activities that might demonstrate the required competence and commitment for Engineering Technician registration. They are intended as examples only as the most appropriate evidence will vary with each individual role. The list is not exhaustive and other types of evidence might be valid. There is no requirement to provide multiple examples of evidence for each area of competence, but examples from two or three projects or tasks would be useful. Please also refer to the EngTech Competence and Commitment statements A-E

Applicant statements

This is your opportunity to provide information which will showcase your abilities and will act in support for your application. Tell us about your career, education and training. Explain how your experiences have helped you develop your skills. **Your response to each question should be at least 100 words.**

A. Use engineering knowledge and understanding to apply technical and practical skills in one or more gas industry activity area.

The reviewers will be looking for evidence that you have the know-how to do the job, are able to go beyond the immediate requirements and use your initiative and experience to solve a problem or improve a process.

A1 Give an example of work you did that went well, the choices you made and the outcome; or something in your work that you were involved in which didn't quite work and explain why; or a technique, procedure or method you improved upon and explain why.

A2 Drawing from your direct experience, explain how a piece of equipment, system or mechanism works.

B. Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services in one or more gas industry activity area.

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

B1 Give an example of how you have used measurement, monitoring and assessment to identify the source of a problem; or to identify an opportunity; or to propose a solution.

B2 Explain how you make decisions about what information, material, component, people or plant to use; or how you introduced a new method of working and what precautions you took; or describe how you have contributed to best practice methods of continuous improvement.

C. Accept and exercise personal responsibility in one or more gas industry activity area.

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

C1 Describe how you identified and agreed what had to be done and to what standards on a typical project.

C2 Describe a situation where you accepted responsibility for the work of yourself or others, providing evidence* in support of what you say.

C3 Describe a situation where you allocated and supervised technical and other tasks, providing evidence* in support of what you say.

*For example minutes of meetings; site notes and instructions; variation orders; programmes of work; specifications, drawing and reports. (An activity not associated with your job can contribute evidence.)

D. Use effective communication and interpersonal skills.

You will need to show you can contribute to discussions, make a presentation, read and synthesize information, or write different types of documents.

D1 Describe how and where you have used oral, written and electronic methods for the communication of technical and other information, providing evidence* in support of what you say.

*For example letters; reports; drawings; emails; minutes of progress meetings; appraisals; work instructions; and planning and organising documents. (Your application itself will be relevant.)

D2 Give an example of how you have worked effectively (as part of a team or otherwise) with colleagues, clients, suppliers or the public

D3 Give an example to demonstrate your personal and social skills and awareness of diversity and inclusion issues

E. Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession, safety and the environment.

Your commitment will be to become part of the profession and uphold the standards to which all members subscribe. You need to show that you have read and understood the institution's Code of Conduct.

E1 Describe how you comply with relevant codes of conduct including IGEM's Professional Code of Conduct, relevant legislative and regulatory frameworks and social and employment legislation

E2 Describe how you apply current safety requirements, such as risk assessment and other examples of good practice you adopt in your work.

E3 Give an example of methodical assessment of risk in specific projects and the actions taken to minimise risk to society or the environment.

E4 Describe how you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, or made use of magazines, lectures organised by professional engineering institutions, and other opportunities to keep abreast of change.

E5 Give an example to demonstrate your understanding of the ethical issues that may arise in your role and how you carry out your responsibilities in an ethical manner (which could include those defined by your organisation or company).

Declaration

I, the undersigned, certify the information provided herein is true and if elected agree to observe IGEM's Professional Code of Conduct, Royal Charter and By-Laws.

Signature:

Printed Name: Date:

Engineering Technicians apply proven techniques and procedures to the solution of practical engineering problems.

Engineering Technicians shall demonstrate:

- Engineering knowledge and understanding to apply technical and practical skills
- Evidence of their contribution to the design, development, manufacture, commissioning, decommissioning, operation or maintenance of products, equipment, processes or services
- Supervisory or technical responsibility
- Effective interpersonal skills in communicating technical matters
- The ability to operate in accordance with safe systems of work and to demonstrate appropriate understanding of the principles of sustainability
- Commitment to professional engineering values

An Engineering Technician will be able to demonstrate their competence in all of the areas listed, but the depth and extent of their experience and competence will vary with the context, nature and requirements of their role. They will demonstrate a level of competence and commitment in each area, (A1–E5), at a level which is consistent with their specific role. It is to be expected that they will have a higher level of competence in some areas than others and their role may provide limited experience in certain areas. However, they need to demonstrate an understanding of, and familiarity with, the key aspects of competence in those areas of limited experience as a minimum requirement while demonstrating higher levels of competence in those areas which are critical to their role. Overall, they will demonstrate an appropriate balance of competences to perform their role effectively at Engineering Technician level.

The examples of evidence are intended as guidance to help identify activities that might demonstrate the required competence and commitment for Engineering Technician registration. They are intended as examples only as the most appropriate evidence will vary with each individual role. The list is not exhaustive and other types of evidence might be valid. There is no requirement to provide multiple examples of evidence for each area of competence, but examples from two or three projects or tasks would be useful.

Competence		Examples of evidence:	
A	<p><u>Knowledge and understanding</u></p> <p>Use engineering knowledge and understanding to apply technical and practical skills in one or more gas industry activity area.</p> <p>This competence is about having knowledge of the technologies, standards and practices relevant to the applicant's area of work and having evidence of maintaining and applying this knowledge.</p>	A1	<p>Review and select appropriate techniques, procedures and methods to undertake tasks.</p> <ul style="list-style-type: none"> Evaluating potential methods of carrying out an engineering task and selecting the most appropriate solution. Recognising a difficulty and then identifying an approach to resolve it. Identifying an improvement in a technique, procedure, process or method. Interpreting and carrying out test procedures.
		A2	<p>Use appropriate scientific, technical or engineering principles.</p> <ul style="list-style-type: none"> Drawing on your technical knowledge to complete a task. Performing calculations using standard formulae. Analysing performance or test data or comparing performance information with published material.

Competence		Examples of evidence:	
B	<p><u>Design, development and solving engineering problems.</u></p> <p>Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services in one or more gas industry activity area.</p> <p>This competence is about the ability to apply engineering knowledge effectively and efficiently to the individual tasks which need to be undertaken in the applicant's role.</p>	B1	<p>Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions.</p> <ul style="list-style-type: none"> Using knowledge to identify a problem or an opportunity for improvement. Investigating a problem to identify the underlying cause. Identifying a solution to a problem or an improvement opportunity. Contributing to the design of an item or process.
		B2	<p>Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact.</p> <ul style="list-style-type: none"> Balancing these factors in selecting appropriate materials. Identifying precautions as a result of evaluating risks and other factors. Considering how waste can be minimised, recycled or disposed of safely if recycling is not possible. Contributing to best practice methods of continuous improvement. Improving the quality of an operation or process.

Competence		Examples of evidence:	
C <u>Responsibility, management and leadership.</u> <u>Accept and exercise personal responsibility in one or more gas industry activity area.</u> This competence is about the ability to plan and manage the applicant's own work effectively and efficiently. It is also about the ability to consider and identify improvements to maintain quality in their work.	C1	Work reliably and effectively without close supervision to the appropriate codes of practice.	<ul style="list-style-type: none"> • 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 the work of themselves or others.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.

Competence		Examples of evidence:	
D Communication and interpersonal skills. Use effective communication and interpersonal skills. 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.

Competence		Examples of evidence:	
<p>E Personal and professional commitment.</p> <p>Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession, safety and the environment.</p> <p>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.</p>	E1	Understand and comply with relevant codes of conduct.	<ul style="list-style-type: none"> • Demonstrating compliance with IGEM'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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Recognising how sustainability principles, as described by the Engineering Council's Guidance on Sustainability can be applied in your day-to-day work (for more information see www.engc.org.uk/sustainability). • 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 utilising, where appropriate, the opportunities offered by IGEM.	<ul style="list-style-type: none"> • 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	Understand the ethical issues that may arise in their role and carry out their responsibilities in an ethical manner.	<ul style="list-style-type: none"> • 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 Engineering Council's Statement of Ethical Principles (for more information see www.engc.org.uk/ethics). • Giving an example of where you have applied or upheld ethical principles as defined by your organisation or company.