

Knowledge Skills and Behaviours for a Civil Engineering Technician Apprentice (Wales)

Based on ICE EngTech attributes and requirements of the IHE.

Knowledge

A Civil Engineer Technician will know how

K 1.1 Use appropriate scientific, technical or engineering principles (links to S1.1)

K1.2 Review and select techniques, procedures and methods to undertake engineering tasks (links to S1.2)

K1.3 Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions (Links to S1.3)

K2.1 Identify tasks and organise resources to complete them effectively (links to S2.1)

K2.2 Work reliably and accept responsibility for their work or the work of others (Links to S2.2)

K2.3 Complete tasks with due consideration for quality (Links to S2.3)

K3.1 Identify, organise and use resources with consideration of cost (Links to S3.1)

K4.1 Understand the safety implications of the role including Relevant and current legislation e.g. CDM (Links to S4.1)

K4.2 Complete tasks with due consideration for safety (Links to S4.2)

K4.3 Comply with safe systems of work (Links to S4.3)

K5.1 Understand the principles of sustainable development and apply them in work (Links to S5.1)

K5.2 Complete tasks with consideration for their environmental impact) (Links to S5.2)

K6.1 Communicate well with others at all levels including effective use of English and/or Welsh using appropriate methods and/or platforms. Including understanding what communication methods/options are available and when each is most effective. (Links to S6.1)

K6.2 Work effectively with colleagues, clients, suppliers and/or the public (Links to S6.2)

K7.1 Use digital tools to promote efficient/effective methods of work safely and securely. (links to S7.1)

K7.2 Undertake effective review of own performance, tasks/projects and own and own competence (links to S7.2)

K7.3 Understand Professional Body Code of Conduct (links to S7.3)

Additional knowledge requirements for Highway Engineers

K7.4 Co-operate, understand and appreciate the role of other (multiple) disciplines within a project. (links to S7.4)

K7.5 Manage and maintain assets during the lifecycle of a project (links to S7.5)

Skills

A Civil Engineering Technician will be able to demonstrate the following skills in the workplace.

Will be able to.

S1.1 Use appropriate scientific, technical or engineering principles (links to K1.1)

S1.2 Review and select techniques, procedures and methods to undertake engineering tasks (links to KS1.2)

S1.3 Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions (Links to K1.3)

S2.1 Identify tasks and organise resources to complete them effectively (links to K2.1)

S2.2 Work reliably and accept responsibility for their work or the work of others (Links to K2.2)

S2.3 Complete tasks with due consideration for quality (Links to K2.3)

S 3.1 Identify, organise and use resources with consideration of cost (Links to K3.1)

S4.1 Implement the ethics security and safety implications of the role including requirements of relevant and current legislation e.g. CDM (Links to K4.1)

S4.2 Complete tasks with due consideration for safety and security (Links to K4.2)

S4.3 Comply with safe systems of work (Links to K4.3)

S5.1 Apply the-principles of sustainable development and apply them in work (Links to K5.1)

S5.2 Complete tasks with consideration for their environmental impact) (Links to K5.2)

S6.1 Demonstrate that they can communicate well with others either orally/written or using technical documents at all levels including effective use of English and/or Welsh using appropriate methods and/or platforms (Links to K6.1)

S6.2 Work effectively with colleagues, clients, suppliers or the public (Links to K6.2)

S7.1 Use digital tools to promote efficient/effective methods of work safely and securely.
(links to S7.1)

S7.2 Undertake effective review of own performance, tasks/projects and own and own competence. (links to S7.2)

S7.3 Demonstrate compliance with Professional Body Code of Conduct (links to S7.3)

Additional skill requirements for Highway Engineers

S7.4 Co-operate, understand and appreciate the role of other (multiple) disciplines within a project. (links to K7.4)

S7.5 Manage or contribute to the management of the maintenance pf assets during the lifecycle of a project. (links to K7.5)

Behaviours

A Civil Engineer Incorporated Technician will demonstrate the following.

B8.1 Demonstrate personal and social skills including consideration of other points of view with empathy and respect.

B8.2 Demonstrate awareness of diversity and inclusion and acts respectfully to all applying the principles of inclusivity

B8.3 Remains professionally curious willing to undertake personal development activities to maintain competence and contribute to a learning culture including complying with Professional Body Code of Conduct and requirement.

B8.4 Act ethically safely and security understanding to address issues that may arise in their role and carry out their responsibilities in an ethical manner.

B8.5 Carry out and record Continuing Professional Development (CPD) necessary to maintain and enhance competence in their own area of practice

B8.6 Individuals should recognise that good communication is key to safe efficient and high-quality work.

B8.7 Individuals should value 2-way communication encouraging others to raise questions or concerns, pro-actively reporting problems when they arise.

B8.8 Mindful of the limits of own experience and works within the limits of own competence.

B 8.9 Acting ethically safely and security prioritising a commitment to a strong safety and security culture

B.8.10 Open to engaging in collaborative processes demonstrating effective teamwork and communication as an individual and as a member of a team