

## PROFESSIONAL INSTITUTION REGISTRATION

### UK - SPEC INCORPORATED ENGINEER

<b>STANDARDS OF COMPETENCE AND COMMITMENT FOR INCORPORATED ENGINEERS</b>	
<p><b>Incorporated Engineers</b> must be competent throughout their working life, by virtue of their education, training and experience, to:</p>	
<b>A</b>	<p><b>Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology.</b></p>
A1	<p><b>Maintain and extend a sound theoretical approach to the application of technology in engineering practice.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Identify the limits of own personal knowledge and skills</li> <li>▪ Strive to extend own technological capability</li> <li>▪ Broaden and deepen own knowledge base through new applications and techniques</li> </ul>
<b>B</b>	<p><b>Apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.</b></p>
B1	<p><b>Identify, review and select techniques, procedures and methods to undertake engineering tasks.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Select a review methodology</li> <li>▪ Review the potential for enhancing engineering products, processes, systems and services, using evidence from best practice</li> <li>▪ Establish an action plan to implement the results of the review</li> </ul>
B2	<p><b>Contribute to the design and development of engineering solutions.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Contribute to the identification and specification of design and development requirements for engineering products, processes, systems and services</li> <li>▪ Identify problems and evaluate possible engineering solutions to meet client needs</li> <li>▪ Contribute to the design of engineering solutions</li> </ul>

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B3	<p><b>Implement design solutions and contribute to their evaluation.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Secure the resources required for implementation</li> <li>▪ Implement design solutions, taking account of cost, quality, safety, reliability, appearance, fitness for purpose and environmental impact</li> <li>▪ Identify problems during implementation and take corrective action</li> <li>▪ Contribute to the evaluation of design solutions</li> <li>▪ Contribute to recommendations for improvement and actively learn from feedback on results</li> </ul>
C	<p><b>Provide technical and commercial management.</b></p>
C1	<p><b>Plan for effective project implementation.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Identify the factors affecting the project implementation</li> <li>▪ Prepare and agree implementation plans and method statements</li> <li>▪ Secure the necessary resources and confirm roles in project team</li> <li>▪ Apply the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.)</li> </ul>
C2	<p><b>Manage the planning, budgeting and organisation of tasks, people and resources.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Operate appropriate management systems</li> <li>▪ Work to the agreed quality standards, programme and budget</li> <li>▪ Manage work teams, coordinating project activities</li> <li>▪ Identify variations from quality standards, programme and budgets, and take corrective action</li> <li>▪ Evaluate performance and recommend improvements</li> </ul>
C3	<p><b>Manage teams and develop staff to meet changing technical and managerial needs.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Agree objectives and work plans with teams and individuals</li> <li>▪ Identify team and individual needs, and plan for their development</li> <li>▪ Manage and support team and individual development</li> <li>▪ Assess team and individual performance, and provide feedback</li> </ul>

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C4	<p><b>Manage continuous quality improvement.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Ensure the application of quality management principles by team members and colleagues</li> <li>▪ Manage operations to maintain quality standards</li> <li>▪ Evaluate projects and make recommendations for improvement</li> </ul>
<p><b>D</b></p> <p>D1</p> <p>D2</p> <p>D3</p>	<p><b>Demonstrate effective interpersonal skills.</b></p> <p><b>Communicate in English with others at all levels.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Contribute to, chair and record meetings and discussions</li> <li>▪ Prepare letters, documents and reports</li> <li>▪ Exchange information and provide advice to technical and non-technical colleagues</li> </ul> <p><b>Present and discuss proposals.</b></p> <p><i>This could include ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Prepare and deliver appropriate presentations</li> <li>▪ Lead and sustain debates with audiences</li> <li>▪ Feed the results back to improve the proposals</li> </ul> <p><b>Demonstrate personal and social skills.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Know and manage own emotions, strengths and weaknesses</li> <li>▪ Be aware of the needs and concerns of others</li> <li>▪ Be confident and flexible in dealing with new and changing interpersonal situations</li> <li>▪ Identify, agree and work towards collective goals</li> <li>▪ Resolve conflicts and create, maintain and enhance productive working relationships</li> </ul>
<p><b>E</b></p> <p>E1</p>	<p><b>Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.</b></p> <p><b>Comply with relevant codes of conduct.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Comply with the rules of professional conduct of own professional body</li> <li>▪ Work constructively within all relevant legislation and regulatory frameworks, including social and employment legislation</li> </ul>

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<p>E2</p>	<p><b>Manage and apply safe systems of work.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Identify and take responsibility for own obligations for health, safety and welfare issues</li> <li>▪ Ensure that systems satisfy health, safety and welfare requirements</li> <li>▪ Develop and implement appropriate hazard identification and risk management systems</li> <li>▪ Manage, evaluate and improve these systems</li> </ul>
<p>E3</p>	<p><b>Undertake engineering activities in a way that contributes to sustainable development.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously</li> <li>▪ Use imagination, creativity and innovation to provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives</li> <li>▪ Understand and encourage stakeholder involvement</li> </ul>
<p>E4</p>	<p><b>Carry out continuing professional development necessary to maintain and enhance competence in own area of practice.</b></p> <p><i>This could include an ability to:</i></p> <ul style="list-style-type: none"> <li>▪ Undertake reviews of own development needs</li> <li>▪ Prepare action plans to meet personal and organisational objectives</li> <li>▪ Carry out planned (and unplanned) CPD activities</li> <li>▪ Maintain evidence of competence development</li> <li>▪ Evaluate CPD outcomes against the action plans</li> <li>▪ Assist others with their own CPD</li> </ul>