

HKIE Revised Competence Standards for Corporate Membership

Area I: Applying Engineering Knowledge

Standard statement (S1): Comprehend and apply knowledge of accepted principles underpinning widely applied good practice for professional engineering, including those specific to Hong Kong, as well as maintain currency of professional engineering knowledge, skills and emerging technologies

Indicators:

- (a) understand and grasp appropriate engineering knowledge, read, understand, evaluate literature and put into practice new knowledge, and seek advice, where necessary, to supplement own knowledge and experience
- (b) demonstrate awareness of and address appropriately the Discipline-specific engineering requirements as well as the related legal requirements and regulatory issues in Hong Kong
- (c) work from first principles to make reliable predictions of outcomes
- (d) demonstrate a commitment to extending and developing knowledge and skills by participating in education, training, mentoring or other programmes contributing to his/her professional development and engaging in collaborative activities with professional engineers

Area II: Formulating Technical Solutions

Standard statement (S2): Define, investigate, analyse and solve complex engineering problems in accordance with good practice for professional engineering, exercise sound professional engineering judgement among competing requirements and be responsible for making decisions on the activities

Indicators:

- (a) identify and understand the scope of the problem
- (b) look into relevant details, information and data using appropriate information technologies and quantitative and qualitative techniques where applicable
- (c) verify the correctness of results and conduct any necessary research and reach substantiated conclusions
- (d) identify needs, requirements, constraints and performance criteria that may be competing and demanding in nature
- (e) formulate concepts and design or develop possible solutions based on engineering principles and with consideration of different perspectives and engagement of stakeholders
- (f) demonstrate the ability to identify alternative options, evaluate their respective pros and cons, and select the solution that best satisfies needs, requirements, and criteria, providing clear justification for the decision
- (g) be recognised by peers for his/her ability to exercise sound professional engineering judgement
- (h) plan and implement effective, efficient and practical systems or solutions
- (i) evaluate outcomes against original criteria and assumptions

Area III: Managing Engineering Work

Standard statement (S3): Manage part or all of one or more complex engineering activities in accordance with good engineering management practice including risk management, sustainability considerations and cultural requirements, and be responsible for making such decisions

Indicators:

- (a) plan, schedule and organise engineering projects to deliver specified outcomes, and demonstrate awareness of financial considerations in managing the projects
- (b) manage resources, including personnel, finance and physical resources in engineering projects
- (c) Develop corresponding management policies, procedures and protocols to identify hazards in design and operations, assess and formulate risk profiles, and manage controls with risk control strategies
- (d) manage conflicting demands and expectations and apply appropriate quality assurance techniques to manage engineering projects
- (e) act appropriately, make decisions and take substantial responsibility during the course and/or for the outcome of complex engineering activities undertaken

Area IV: Contributing to Sustainability

Standard statement (S4): Recognise the reasonably foreseeable economic, social, cultural, health, safety, sustainability and environmental effects of professional engineering activities generally

Indicators:

- (a) consider and take into account of the impact and long-term effects of engineering activities on the economy, society, culture, health, safety, sustainability and environment with reference to the United Nations Sustainable Development Goals (UNSDG)
- (b) project the outcome of professional engineering activities in the context of economic, social, cultural, health, safety, sustainability and environmental aspects

Area V: Upkeeping Professional Acumen

Standard statement (S5): Conduct engineering activities to an ethical standard and communicate and collaborate clearly and inclusively with other engineers and stakeholders that he or she is likely to deal with in the course of his or her professional engineering activities

Indicators:

- (a) demonstrate understanding of the HKIE Rules of Conduct and behave accordingly in difficult circumstances (including demonstrating an awareness of limits of capability; acting with integrity and honesty and demonstrating self management)
- (b) use oral and written communication to convey clear message through a range of media suitable to the context that meet the needs and expectations of the audience
- (c) treat people with respect and develop empathy and use active listening skills when communicating with others
- (d) operate effectively as a team member

Written communication skills

In addition to the abovementioned competence standards, written communication skills are required.

(a) ability to communicate effectively with others in the course of engineering activities

- Generic English communication skills refer to clarity of argument, logical presentation and accuracy. The candidate must demonstrate an ability to write concise and grammatically correct English with proper presentation relevant to the intended readers.
- Technical communication skills refer to the candidate's knowledge and the relevance of the ideas expressed. The candidate must demonstrate a reasonable depth and breadth of knowledge in the subject area.

The Hong Kong Institution of Engineers

February 2026