

ICES Cost Engineering Specialism Competencies

The cost engineering competencies are split into core and specialist competencies.

OPTIMUM STANDARDS

Each of the activities under the competencies must be signed-off to a specific standard, indicated by one of the letters A, K, E or B. The definitions of these are given below.

A	Appreciation	A general awareness of the activity is required. This could be acquired by reading a magazine article or attending a CPD event.
K	Knowledge	This standard requires a more detailed level of knowledge understanding of the activity. This could be acquired by undertaking a training course or other type of study but not necessarily put into practice. E.g. a subject area on a degree course.
E	Experience	To reach this standard the activity must have been performed independently or under supervision. This may be achieved by undertaking the activity in a work context over a period of time. Experience of the activity or subject should follow on and be additional to appreciation and knowledge in that subject area.
B	Ability	To be able, without supervision, to perform relevant functions and be able to supervise other less experienced staff. This may be evidenced by the undertaking of management roles or experience gained over time.

Technical Member level - the applicant must achieve a minimum average standard K across all core and specialism activities. In addition, **a minimum of 5 activities must be assessed at level E**, and **up to 5 activities may be assessed at level A**. There are no restrictions within this as to the particular choice of activities.

Member level – the optimum standard is given against each activity statement.

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CE 1	Cost Engineering Specialist Competencies	COMPETENCIES AND ASSESSMENT				
January 2015		Cost planning and pre-contract cost control				
	Technical Member Optimum Standard- see requirements on covering sheet	Activity Details	Date of Assessment			
Reference	Member – Optimum Standard		A	K	E	B
A	B	Identify the key elements of a project and prepare an initial project budget at high level				
B	B	Develop a detailed cost plan or spread of a project budget, along with identification of cost drivers for civil engineering works. Establish an appropriate work break down structure.				
C	E	Civil engineering design options covering Employer/Consultant design, novation and Contractor design and construct				
D	B	Use rates and prices from various sources to benchmark the project budget or cost plan against similar schemes				
E	E	Knowledge of various scheme funding options, and corporate governance applied by stakeholders				

Name of Supervisor	Name of Applicant
Supervisor's signature	Date CM / CE 1

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CE 2	Cost Engineering Specialist Competencies	COMPETENCIES AND ASSESSMENT				
January 2015		Project/Commercial Management Reporting, internal accounts and company accounts				
	Technical Member Optimum Standard – see requirements on covering sheet	Activity Details	Date of Assessment			
Reference	Member - Optimum Standard		A	K	E	B
A	E	Assessment of financial performance through the use of cost loaded programmes or assessment of quantity of work completed to arrive at cost and value reconciliation reporting.				
B	K	The production of project trading accounts/reports illustrating profit/loss, overhead cost recovery, and financial outturn forecasts for management purposes and their impact on company objectives.				
C	K	Understand the basics of company accounts, including turnover, profit/loss, work in hand and cashflow				
D	E	Identify and interpret Key Performance and Result Measures				

Name of Supervisor	Name of Applicant
Supervisor's signature	Date CM / CE 2

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CE 3	Cost Engineering Specialist Competencies	COMPETENCIES AND ASSESSMENT				
January 2015		Recording works progress and determining/evaluating the effects of delay, prolongation and disruption				
	Technical Member - Optimum Standard – see requirements on covering sheet	Activity Details	Date of Assessment			
Reference	Member - Optimum Standard		A	K	E	B
A	K	Preparation and maintenance of suitable contemporary records of work progress				
B	E	Evaluation of recorded work through applying relevant financial assessment methods				
C	K	The causes of delay and their critical and non-critical effects on project completion and entitlement to extensions of time				
D	K	The effects of disruption on resources and progress, and methods of demonstrating disruption effects				
E	E	Apply a range of valuation techniques to items of change, and understand the relative strengths and weaknesses of those techniques				

Name of Supervisor	Name of Applicant
Supervisor's signature	Date
	CM / CE 3

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CE 4	Cost Engineering Specialist Competencies	COMPETENCIES AND ASSESSMENT				
January 2015		Bills of Quantities, Schedules of Rates and Activity Schedules				
	Technical Member - Optimum Standard – see requirements on covering sheet	Activity Details	Date of assessment			
Reference	Member – Optimum Standard		A	K	E	B
A	E	The various uses of Bills of Quantities, Schedules of Rates, and Activity Schedules and their preparation in accordance with standard methods of measurement.				
B	E	The different risks associated with measurement and pricing carried out under re-measurement contracts, lump sum contracts and target cost/cost reimbursable contracts and design and construct contracts.				
C	E	The structure of a Bill of Quantities and the varying approach to pricing with particular reference to quantity related and time related items and method related charges				
D	E	The principles of pricing using Activity Schedules (including scope coverage) and how to deal with the evaluation of change under this type of contract.				

Name of Supervisor	Name of Applicant
Supervisor's signature	Date
	CM / CE 4

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CE 5	Cost Engineering Specialist Competencies	COMPETENCIES AND ASSESSMENT			
January 2015		Management of Interim and final accounts			
	Technical Member – Optimum – Standard - see requirements on covering sheet	Activity Details		Date of Assessment	
Reference	Member – Optimum Standard	A	K	E	B
A	E	Apply the contractual and statutory provisions relating to applications for payment including Contractor and Employer/Project Manager assessments, certificates and payment for both interim and final accounts			
B	K	Preparation, presentation, negotiation and agreement of interim and final accounts, including re-measurement in accordance with a standard method of measurement.			
C	K	Understanding of what constitutes settlement agreements and auditing of final accounts			
D	K	Preparation and evaluation of compensation event claims, and/or other claims based upon contractual entitlement, and/or insurance claims			

Name of Supervisor	Name of Applicant
Supervisor's signature	Date
	CM / CE 5