



## QCF Unit and Assessment Specification

<b>Unit title</b>	Evaluate Work Methods and Programme in Construction Contracting Operations Management
<b>Ofqual Unit code</b>	R/505/8309
<b>SQA Unit code</b>	H81E 84
<b>SSC Ref</b>	COSCCOMO14

## History of changes

**Publication date:** August 2014

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<b>Version number</b>	<b>Date</b>	<b>Description</b>	<b>Authorised by</b>

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## QCF Unit specification

<b>Title</b>	Evaluate Work Methods and Programme in Construction Contracting Operations Management	
<b>Level</b>	6	
<b>Credit value</b>	13	
<b>Learning Outcomes</b>	<b>Assessment Criteria</b>	
<b>The learner will:</b>	<b>The learner can:</b>	
1 Be able to evaluate, review and select work methods.	1.1	Assess the available project information accurately and summarise it to enable decisions on production, installation and work methods to be made.
	1.2	Obtain more information from other sources in cases where the available project information is insufficient.
	1.3	Identify and evaluate the possible work methods against relevant technical and project criteria and select those which best meet the criteria.
	1.4	Analyse the method which has been selected for its activity content and quantify it accurately.
	1.5	Propose the selected method to decision makers.
	1.6	Review method statements to ensure that they are accurate, clear, concise and acceptable to all the people involved.
2 Understand how to evaluate, review and select work methods.	2.1	Examine how to assess the available project information accurately.
	2.2	Explain how to summarise project information to enable decisions on production, installation and work methods to be made.
	2.3	Explain how to obtain more information from other sources in cases where the available project information is insufficient.

Learning Outcomes	Assessment Criteria
<p><b>The learner will:</b></p>	<p><b>The learner can:</b></p> <p>2.4 Describe what to identify as the possible work methods against relevant technical and project criteria and select those which best meet the criteria.</p> <p>2.5 Explain how to evaluate the possible work methods against relevant technical and project criteria and select those which best meet the criteria.</p> <p>2.6 Examine how to analyse the method which has been selected for its activity content and quantify it accurately.</p> <p>2.7 Propose the selected method to decision makers.</p> <p>2.8 Examine how to review method statements to ensure that they are accurate, clear, concise and acceptable to all the people involved.</p>
<p>3 Be able to evaluate project programme.</p>	<p>3.1 Identify major activities, calculate the resources needed and identify their sources from the project information available and prepare a draft work programme.</p> <p>3.2 Evaluate alternative methods, resources and systems, in order to select the optimum solution to meet project requirements.</p> <p>3.3 Obtain clarification and advice where the resources needed are not available.</p> <p>3.4 Analyse the sequential programming of activities against project requirements and the requirements of significant external factors and necessary resources.</p> <p>3.5 Ensure that the produced programmes and schedules of planned activities are consistent with the complexity of the project.</p>

<b>Learning Outcomes</b> <b>The learner will:</b>	<b>Assessment Criteria</b> <b>The learner can:</b>
	<p>3.6 Confirm alterations to the works programme which will meet changed circumstances or offer cost and time benefits, calculate the savings accurately and justify them to decision makers.</p> <p>3.7 Develop a system for monitoring and recording the works programme, implement it and use the results to improve future production and planning.</p>
<p>4 Understand how to evaluate project programme.</p>	<p>4.1 Describe what to identify as major activities from the project information.</p> <p>4.2 Explain how to calculate the resources needed for major activities.</p> <p>4.3 Describe what to identify as the sources of resources from the project information available.</p> <p>4.4 Explain how to prepare a draft work programme.</p> <p>4.5 Explain how to evaluate alternative methods, resources and systems, in order to select the optimum solution to meet project requirements.</p> <p>4.6 Explain how to obtain clarification and advice where the resources needed are not available.</p> <p>4.7 Examine how to analyse the sequential programming of activities against project requirements and the requirements of significant external factors and necessary resources.</p> <p>4.8 Explain how to ensure that the produced programmes and schedules of planned activities are consistent with the complexity of the project.</p>

<b>Learning Outcomes</b>	<b>Assessment Criteria</b>
<b>The learner will:</b>	<b>The learner can:</b>
	<p>4.9 Explain how to confirm alterations to the works programme which will meet changed circumstances or offer cost and time benefits.</p> <p>4.10 Explain how to calculate the savings accurately from alternations to the works programmes.</p> <p>4.11 Evaluate how to justify the savings from alterations to the works programmes to decision makers.</p> <p>4.12 Propose how to develop a system for monitoring and recording the works programme.</p> <p>4.13 Explain how to implement a system for monitoring and recording the works programme and use the results to improve future production and planning.</p> <p>4.14 Explain how to use the results from the system for monitoring and recording the works programme to improve future production and planning.</p>

<b>Additional information about the Unit</b>
<b>Unit purpose and aim(s)</b>
<p>This Unit is about assessing project information and selecting methods which meet technical project criteria. It is also about analysing the sequential programming of activities and confirming alterations and developing a monitoring system for the works programme.</p> <p>You will need to assess project information and obtain more information where required. You will need to identify, evaluate and select methods which meet technical and project criteria. You will also need to analyse and quantify the selected methods for their activity content and review method statements to ensure that they are accurate and acceptable for the people involved.</p> <p>You will need to prepare a draft work programme which includes calculations of resources needed for major activities. You will also need to evaluate alternative methods and resources to meet project requirements and obtain advice and clarification where resources are not available. You will need to analyse the sequential programming of activities against external factors and resources to meet project requirements. You will then need to ensure that programmes and schedules of activities are consistent with the complexities of the project. You will also need to confirm any alternations made to the works programme and develop a monitoring system for it.</p>
<b>Unit expiry date</b>
31 December 2017
<b>Details of the relationship between the Unit and relevant national occupational standards (if appropriate)</b>
The Unit sets out the competence and knowledge specification for COSCCOM014 in Construction Contracting Operations Management.
<b>Details of the relationship between the Unit and other standards or curricula (if appropriate)</b>
N/A
<b>Assessment requirements specified by a sector or regulatory body (if appropriate)</b>
<p>The following ranges apply:</p> <p><b>Learning Outcomes 1 and 2</b></p> <ul style="list-style-type: none"> <li>◆ Project information: <ul style="list-style-type: none"> <li>— conditions and obligations of contract</li> <li>— bills of quantities</li> <li>— specifications</li> <li>— information (digital models, documents, drawings, graphical and non-graphical electronic data files)</li> </ul> </li> </ul>

## Additional information about the Unit (cont)

### Assessment requirements specified by a sector or regulatory body (if appropriate) (cont)

- health, safety and welfare plans
- environmental plan
- time-scales
- risk
- ◆ Production, installation and work methods:
  - sequencing and integration of work operations
  - organisation and use of resources (people, plant, materials, finance)
  - construction and installation techniques
  - temporary works
  - prefabrication and standardisation
  - handling operations
  - materials recovery & waste management
  - supply chain management
  - health, safety and welfare
  - impact on programming processes & workforce of new materials and technologies
- ◆ Other sources:
  - consultant
  - contractors
  - sub-contractors
  - suppliers
  - statutory and regulatory authorities
  - technical literature
  - trade literature
  - organisational expertise
- ◆ Identify work methods:
  - standard procedures
  - investigative research
- ◆ Technical criteria:
  - materials & component performance & availability
  - structural forms
  - physical conditions and environmental factors
  - health, safety and welfare
  - fire protection
  - access
  - plant, equipment & people availability
  - traffic generation and management
  - waste and sustainability
  - weather conditions
  - energy and low carbon efficiency
  - build ability
  - protection of archaeological and historically valuable resources
  - demolition
- ◆ Project criteria:
  - cost benefit
  - value engineering
  - conformity to statutory requirements
  - phased occupancy



## **Additional information about the Unit (cont)**

### **Assessment requirements specified by a sector or regulatory body (if appropriate) (cont)**

- facility/asset management requirements
- contract requirements in terms of time, quantity and quality
- environmental considerations
- defined services
- impact on occupiers and near neighbours
- community benefits, including skills and training
- third party obligations
- other related programmes
- supply lead times
- industry performance
- benchmarking
- ◆ Analyse - using:
  - method study
  - production analysis
  - feedback from similar projects
  - Building Information Modelling

### **Learning Outcomes 3 and 4**

- ◆ Resources:
  - cash flow
  - people
  - consultants
  - plant and equipment
  - materials and components
  - contractors
  - sub-contractors
- ◆ Project information:
  - conditions and obligations of contract
  - bills of quantities
  - specifications
  - information (digital models, documents, drawings & graphical and non-graphical electronic data files)
  - health, safety and welfare plans
  - environmental plan
  - timescales
  - risk
- ◆ Programmes and schedules:
  - digital timeline model
  - bar charts
  - flow charts
  - critical path
  - line of balance
  - time chainage
  - action lists
  - method statements
  - check costs

## **Additional information about the Unit (cont)**

### **Assessment requirements specified by a sector or regulatory body (if appropriate) (cont)**

- control systems
- as built programme
- ◆ Clarification and advice
  - the client/client's representative
  - consultants
  - project team partners
  - industry research
  - technical publications
  - trade literature
  - experts, including experienced craftspeople and suppliers
- ◆ Analyse - using:
  - method study
  - production analysis
  - Building Information Modelling
- ◆ Project requirements:
  - contract conditions
  - defined responsibilities
  - contract programme stipulations
  - statutory consent
  - Building Control notification
  - third party obligations
  - organisation and use of resources
  - health and safety requirements
  - quantities
  - energy and low carbon efficiency
  - protection of archaeological and historically valuable resources
  - skills and training development
- ◆ External factors:
  - other related programmes
  - supply lead times
  - contingencies
  - special working conditions
  - impact on occupiers and near neighbours
  - weather conditions
  - statutory limitations
  - site conditions
  - off-site manufacture and on-site assembly
- ◆ System for monitoring and recording:
  - manual
  - electronic

This Unit must be assessed in a work environment, in accordance with:

- ◆ the Additional Requirements for Qualifications using the title NVQ in QCF
- ◆ the Construction Skills' Consolidated Assessment Strategy for Construction and the Built Environment.

<b>Additional information about the Unit (cont)</b>
<b>Assessment requirements specified by a sector or regulatory body (if appropriate) (cont)</b>
<p>Assessors for this Unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.</p> <p>Workplace evidence of skills cannot be simulated.</p>
<b>Endorsement of the Unit by a sector or other appropriate body (if required)</b>
CITB
<b>Location of the Unit within the subject/sector classification system</b>
4.1 Engineering, 5.2 Building and Construction
<b>Name of the organisation submitting the Unit</b>
CITB
<b>Availability for use</b>
Shared
<b>Availability for delivery</b>
01 August 2014
<b>Guided Learning Hours</b>
30

## QCF Assessment specification

### Assessment (evidence) Requirements

The Evidence Requirements for this Unit are shown in the main body of the Unit under the section titled 'Assessment requirements or guidance specified by a sector or regulatory body'.

### Guidance on Methods/Instruments of Assessment

#### Occupational Skills (OS) Unit

This Unit is designed to assess the skills of learners in the workplace. Observation of learner performance can only be carried out on-the-job and should always be the primary and preferred source of evidence of competent performance.

Collection of supplementary evidence of performance can be used to further substantiate, support and expand the evidence base for competent performance where this is necessary. This may arise in situations where evidence from direct observation of the learners on-the-job is deemed insufficient to fully meet the required standards. Supplementary evidence may include:

- ◆ witness testimony
- ◆ questioning
- ◆ professional discussion
- ◆ product and photographic evidence
- ◆ relevant active documentation, reports, presentations
- ◆ other valid evidence which relates directly to learner performance on-the-job

SQA's Guide to Assessment is designed to provide support for everyone who assesses for SQA qualifications. It looks at the principles of assessment, and brings together information on assessment in general as well as on best practice in assessment. The Guide to Assessment can be downloaded free from SQA's website [www.sqa.org.uk](http://www.sqa.org.uk).