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QUALIFICATION INFORMATION BOOKLET DIPLOMA IN PROJECT CONTROL, ESTIMATING, PLANNING AND COST ENGINEERING AT QCF LEVEL 5



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#### Introduction

This booklet has been developed to provide anyone considering the MERCURIUS POLITICUS Diploma in Project Control, Estimating, Planning and Cost Engineering with an introduction to the awards currently available through MERCURIUS POLITICUS. This booklet contains a copy of the units within the Project Control, Estimating, Planning and Cost Engineering qualification as well as a summary of the way in which qualifications are constructed; what the process is in achieving an MERCURIUS POLITICUS qualification; and how it is assessed.

### 1. What is an MERCURIUS POLITICUS Competence Based Qualification (CBQ)?

MERCURIUS POLITICUS Competence Based Qualifications (CBQ) are work-based qualifications which are based on the National Occupational Standards (NOS) of that particular sector of industry. NOS are developed by employers and professional bodies in conjunction with the Standard Setting Body and describe what is meant by occupational competence within a particular job role.

All CBQ qualifications are structured in such a way that they can be broken down into the following common parts:

- Units
- Level
- Credit value
- Learning outcomes
- · Assessment criteria
- Assessment requirements

Each of these parts is further described below.

Units	A qualification is divided into units, each of which describes an activity which the candidate will be expected to perform competently.
Level	The level represents the complexity, autonomy and/or range of achievement expressed within the unit.
Credit Value	The credit value represents the learning time being defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria.
Learning Outcomes	Learning outcomes set out what a candidate is expected to know, understand or be able to do as the result of a process of learning.
Assessment Criteria	The assessment criteria within a unit specifies the standard a candidate is expected to meet to demonstrate that the learning outcomes have been achieved in order to be deemed competent.
Assessment requirements	Details any requirements about the way a unit must be assessed.

# 1.1 What is the process involved in achieving a Competence Based Qualification (CBQ)?

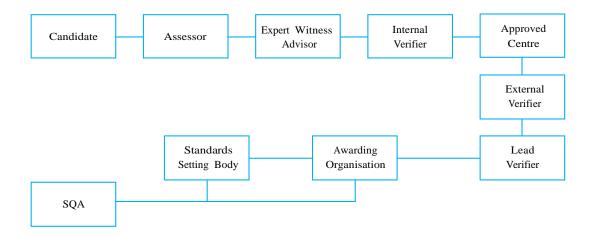
Once a candidate has been registered with the awarding organisation, in this case MERCURIUS POLITICUS Awards & Qualifications, they will be ready to begin working towards their qualification. They will then be introduced to the assessor who will offer support and guidance as the candidate progresses through the stages of the qualification. The assessor will firstly introduce the candidate to the other key members of the qualification system.

These will include:-

- · Expert Witness Advisor
- Internal Verifier
- · Approved Centre
- · Centre Co-ordinator
- External Verifier
- Lead Verifier
- Awarding Body
- Standard Setting Body
- Scottish Qualifications Authority (SQA)

The assessor will also explain what roles each of these key members will play in assuring the quality of the qualifications system. This is vitally important as it helps to ensure that the assessment of qualifications is valid and reliable and that certificates are only awarded to those candidates who do successfully meet the standards required.

The diagram below illustrates the flow of information between each of the key members.



The following tables summarise the roles which each of the key members perform in quality assuring the regulated qualifications systems, including N/SVQ's.

Who's who	What is their role?
Candidates Individuals seeking validation for their achievements and competence.	<ul> <li>Show they can perform to national standards in order to be awarded credit, counting towards a qualification and demonstrate the specified knowledge, understanding and skills.</li> <li>Take some responsibility for the quality of evidence provided to assessors.</li> </ul>
Assessors Appointed by an approved centre to assess a candidate's evidence. In direct contact with candidates. Holds appropriate qualification as agreed by the regulators such as D32 and D33 or A1.	<ul> <li>Judge candidates' evidence against the CBQ units.</li> <li>Advise candidates on opportunities to collect evidence.</li> <li>Ensure that the evidence provided is current. (Up to and including the two year period prior to the portfolio completion date for any unit or qualification).</li> <li>Decide whether the candidate has demonstrated competence, give feedback on the decision and record it.</li> <li>Ensure that their assessment practice meets awarding organisation guidance.</li> </ul>
Expert Witness Advisor Appointed by an approved centre to carry out direct observation as the exception when an assessor is not available.	<ul> <li>Can carry out direct observation of the candidate against the criteria for the mandatory assessor observation of assessment criteria and assessment requirements where the practicalities and costs of having an assessor available to observe the candidate at work are prohibitive.</li> <li>The EWA shall meet the criteria for assessor occupational expertise as specified by the MERCURIUS POLITICUS Standards Setting Body Assessment Strategy.</li> <li>A registered EWA can provide mandatory direct observation of any candidate in the relevant qualification for any approved centre as long as the assessor/EWA procedures are followed.</li> </ul>
Internal Verifiers Appointed by an approved centre to ensure consistency and quality of assessment. Holds V1 and A1 or appropriate qualification as agreed with the regulators.  Works to the MERCURIUS POLITICUS Internal Verification	<ul> <li>Work with assessors to ensure the quality and consistency of assessment.</li> <li>Sample candidate assessments to ensure consistent assessment.</li> <li>Ensure their own verification practice meets V1.</li> <li>Ensure that assessment and verification records and documents are fit for purpose and meet awarding organisation requirements.</li> <li>Ensure that requests for certificates to the awarding organisation are based on assessments of consistent quality.</li> <li>Provide support and guidance for the centre's assessors.</li> </ul>
Code of Practice Centre Co-ordinators May take on some internal verifier functions, particularly relating to administration. Not all centres have co-ordinators.	<ul> <li>Act as a contact for the awarding organisation and the external verifier.</li> <li>Ensure that there are accurate assessment and verification records for the qualification.</li> <li>Request certificates and credits from the awarding organisation.</li> </ul>
Approved Centres Organisations approved by awarding bodies to assess and verify qualifications	<ul> <li>Manage assessment and verification on a day-to-day basis.</li> <li>Have effective assessment practices and internal verification procedures.</li> <li>Meet awarding organisation requirements for qualification delivery.</li> <li>Have sufficient competent assessors and internal verifiers with enough time and authority to carry out their roles effectively.</li> </ul>
Lead Verifiers Appointed by MERCURIUS POLITICUS Awards & Qualifications to manage teams of external verifiers.	<ul> <li>Manage the workload of the external verifiers.</li> <li>Monitor performance of the external verifiers.</li> <li>Provide advice and guidance to external verifiers.</li> <li>Carry out all new centre approvals.</li> <li>Approve post approval monitoring reports and ensure all actions are implemented.</li> <li>Approve any recommendations for sanctions on centres.</li> <li>Resolve disputes.</li> <li>Approve recommendations for appointment of new assessors and internal verifiers.</li> </ul>

Who's who	What is their role?
External Verifiers  Appointed by Awards & Qualifications to monitor the work of approved centres.  They are the key link between the awarding organisation and the centre.  Holds V2 and A1 or appropriate qualification as agreed by the regulators.  Works to the MERCURIUS POLITICUS External Verification Code of Practice.	<ul> <li>Make sure that decisions on competence are consistent across centres.</li> <li>Make sure that the quality of assessment and verification meets national standards.</li> <li>Sample candidate assessments and monitor assessment and verification practices in centres, including interviews with assessors and internal verifiers.</li> <li>Provide advice, guidance and feedback to centres.</li> <li>Make regular visits to centres and assessment locations.</li> <li>Ensure that their own verification practice meets V2 and A1.</li> </ul>
Awarding Body / Awarding Organisations An organisation approved by SQA to award qualifiations with a framework.	<ul> <li>Ensure the quality and consistency of assessment for qualifications nationally.</li> <li>Produce guidance for centres.</li> <li>Appoint, support and develop external verifiers, allocate them to centres and monitor their work.</li> <li>Approve and monitor centres against the approved centre criteria.</li> <li>Award credit.</li> <li>Collect information from centres to inform national decisions about qualification delivery.</li> <li>Provide information to SQA.</li> </ul>
Standards Setting Bodies / SSB Develop the National Occupational Standards on which competence qualifications are based.	<ul> <li>Work with industry to develop National Occupational Standards.</li> <li>Work with awarding organisations to produce assessment strategies.</li> <li>Provide information about, and clarification of, the National Occupational Standards.</li> </ul>
Sector Skills Councils / SSC	Accredit qualifications put forward by awarding organisations if they meet the published criteria.
Regulatory Authorities SQA Scottish Qualification Authority (SQA) accredits qualifications in Scotland.	<ul> <li>Accredit qualifications put forward by Awarding Bodies if they meet the published criteria.</li> <li>Ensure the quality of the overall qualification system through work with Awarding Bodies.</li> <li>Monitor the performance and effectiveness of Awarding Bodies through quality audits.</li> </ul>

#### 1.2 What will be assessed?

Once the candidate has decided with the assessor which route they will take through the qualification, i.e. the units they will work towards, they are ready to begin assessment. Broadly speaking two aspects of the candidate's working practice will be assessed: their performance; and their knowledge and understanding. The assessor will work with the candidate to plan how, when and where evidence will be gathered to cover these aspects.

#### 1.3 How will assessment take place?

There are a variety of methods through which evidence of the candidate's competence can be gathered. There are also different methods by which to collect performance and knowledge evidence.

In relation to performance evidence there are five main assessment methods:

- 1. Direct observation of the candidate's performance by the assessor and/or EWA.
- Testimony from a witness such as a candidate's colleague, this is also observation of the candidate.
- Documentary evidence (such as permits to work, work specifications etc.) which relate to work successfully completed by the candidate on a past occasion.
- 4. Demonstration of a task by the candidate at the assessor's request. This is known as 'Simulation'.
- 5. Questioning of the candidate to establish knowledge and understanding requirements.

These options give an assessor and the candidate some flexibility in how they are able to prove competence. However, some of these assessment methods are less reliable and as such their use may be limited within the qualification. If this is the case the guidance contained within the CBQ units will provide further clarification. Direct observation of the candidate by the assessor is the most reliable, and often the most straightforward, method of gathering evidence. The approved centre and the assessment team responsible for assessing the candidate will determine whether observation or some of the other assessment methods listed above offer the best assessment solution for each individual candidate.

In relation to evidence of knowledge and understanding there are two main assessment methods:

- 1. Performance evidence gathered in the course of working towards the unit.
- 2. Questioning of the candidate.

In some instances, it will be self-evident from the candidate's performance that they have acquired the necessary knowledge and understanding e.g. where the unit requires knowledge of how to carry out a specific task and by carrying it out effectively the candidate demonstrates that they know what to do.

However, knowledge of why something is done in a certain way cannot be demonstrated through performance alone and questioning of the candidate is another assessment method that could be used.

#### 1.4 Simulation requirements

Demonstration, as previously outlined, is one of the assessment methods available to candidates and assessors through which to observe a candidate's competence. However, its use has been limited to certain specific units in which it may be possible to gather the naturally occurring workplace evidence normally required.

Reference needs to be made to the standards to confirm the status of each unit, however, as a rule simulation is only permissible where one or more of the following characteristics apply:

- a) Health and safety could be compromised by seeking workplace evidence.
- b) The behaviour or situation under which assessment occurs happens infrequently in the workplace.
- c) The responsibility for the work rests with the candidate, but it is typically either delegated or carried out jointly with another and the candidate has limited opportunity to demonstrate it directly and individually.
- d) There would be unacceptable commercial or operational risk in securing workplace assessment.
- e) Facilities would need to be placed in an unacceptable operating state to allow for assessment to take place.

The assessment requirements detail within each unit whether or not simulation is permitted within the assessment for that unit.

Where simulation is permitted, the simulated activity must be designed to reflect the activity as it would be carried out in a typical workplace environment, including:

- a) The presence, actions and capabilities of other interacting personnel.
- b) The urgency with which the activity must be carried out and the time needed to complete it.
- c) The number and sequence of actions needed to complete the activity.
- d) The number and complexity of the factors affecting the activity.
- e) The skills and knowledge needed to carry out the activity.
- f) The nature and availability of resources needed to carry out the activity.
- g) Access to references and sources of advice and assistance that could be needed if problems arise.
- h) The type of documentation to be completed.
- i) The standards to which the activity must be carried out, including any practices and procedures which must be followed.
- j) The outcomes which the activity will produce.
- k) Access to normal/usual workplace instructions.

### 1.5 Assessment of candidates with particular assessment requirements

Equal Opportunities, Reasonable Adjustments and Special Considerations.

#### **Access to Fair Assessment**

MERCURIUS POLITICUS Awards & Qualifications requires approved centres to demonstrate a clear commitment to access to fair assessment, equal opportunities, reasonable adjustments and special considerations and to operate a Fair Assessment Policy in all matters concerning the assessment of candidates for the award of Qualifications and/or certificates or unit credits and in any appeals against approved centre decisions.

The policy must take account of full current legislation in the area of access to fair assessment and equal opportunities. This must include:

- The Equality Act.
- The Special Educational Needs and Disability Act.
- The Human Rights Act.

The approved centre must ensure that relevant staff in the assessment team receives training in the relevant sections of current legislation and that sufficient and appropriate information with regard to the content of this procedure is passed to all members of the approved centre assessment team.

The approved centre must maintain records of assessment and verification decisions, which demonstrate that:

- Assessment decisions only discriminate between candidates on the basis of the competence defined by the National Occupational Standards specified in the qualification.
- Assessment judgements are made regardless of race, gender, disability, nationality, religion, age, sexual
  orientation, family status or any other irrelevant factor.

#### Arrangements for candidates with particular assessment requirements

#### **Principles**

Approved centres must ensure that there are no unnecessary barriers to assessment, which prevent candidates from effectively demonstrating their attainment. Arrangements for candidates with particular assessment requirements (special arrangements) must also ensure that such candidates are not given, or do not appear to be given, an unfair advantage. Special arrangements are generally not appropriate where the candidate's particular difficulty directly affects performance in the actual attributes that are the focus of assessment.

Approved centres must make special arrangements according to the needs of the individual candidate, reflecting the candidate's usual method of working, the assessment requirements as set out in the specification and any guidelines set down by the regulatory authorities. Any special arrangements must ensure that the validity, reliability and integrity of the assessment are preserved and that certificates accurately reflect candidate attainment.

Approved centres are only required to do what is 'reasonable' in terms of giving access. What is reasonable will depend on the individual circumstances, cost implications and the practicality and effectiveness of the adjustment. As stated above the NOS must be taken into consideration, as must any safety and health implications.

There are two ways in which access to fair assessment can be maintained

- 1. Through reasonable adjustments.
- 2. Through special consideration.

#### **Reasonable Adjustments**

A reasonable adjustment is any action that helps to reduce the effect of a disability that places the candidate at a substantial disadvantage in the assessment situation.

Reasonable adjustments must not affect the integrity of what needs to be assessed, but may involve:

- Changing standard assessment arrangements, for example allowing candidates extra time to complete
  the assessment activity.
- Adapting assessment materials, such as providing materials in Braille.
- · Providing access facilitators during assessment, such as a sign language interpreter or a reader.
- · Re-organising the assessment room, such as removing visual stimuli for an autistic candidate.

Reasonable adjustments will not be taken into consideration during the assessment of the candidates work.

#### **Special Consideration**

Special consideration is given following an assessment to candidates who are present for the assessment but may have been disadvantaged by temporary illness, injury or adverse circumstances, which arose at or near the time of assessment.

Special consideration should not give the candidate an unfair advantage neither should its use cause the user of the certificate to be misled regarding a candidate's achievements. The candidate's result must reflect his or her achievement in the assessment and not necessarily his or her potential ability.

Where an assessment requires a competence, criteria or standard to be met fully, it may not be possible to apply special consideration. In some circumstances it may be more appropriate to offer the candidate an opportunity to retake the assessment at a later date or to extend the registration period so that the candidate has more time to complete the assessment activity.

Approved centres must make provision for special consideration to ensure that candidates who suffer temporary illness, injury or indisposition at the time of assessment are treated fairly. Such assessment should be made available to the candidate as soon as is reasonably practical within the guidelines of access to fair assessment. Where this is not possible, the awarding organisation will consider each individual case for special consideration, identifying the minimum requirements for an award to be made.

#### **Procedures**

Approved centre assessment team members should refer to the written procedures provided within the MERCURIUS POLITICUS Awards & Qualifications Quality Assurance Procedures Manual for further guidance and information or to their own Approved Centre Operations Manual.

#### **Monitoring and Reporting**

The awarding organisation will monitor, evaluate and report annually on the use of special arrangements by its approved centres. Relevant data will be shared with the regulatory authorities on request.

#### 1.6 Recommended prior learning

There is no prior knowledge, attainment or experience required for this qualification. Existing workers are expected to be competent by virtue of their length of service and experience and satisfactory performance in their roles, and will need to achieve the qualification in order to have this competence validated.

#### 1.7 Credit

Credit is awarded to candidates for the successful achievement of the learning outcomes of a unit. The number of credit awarded will be the same as the value of the achieved unit, it is not possible for some credit to be achieved for partial completion of a unit or for candidates to be awarded credit when all learning outcomes are not achieved by virtue of any 'compensation' for stronger performance in other areas of learning/achievement.

**Credit accumulation** is the term used to describe the process of putting a combination of credits to meet the achievement requirements of a qualification. These determine the requirements for achievement of credits through particular units. Awarding organisations award qualifications based on this process.

**Credit transfe**r describes the process of using a credit or credits awarded in the context of a different qualification or awarded by a different awarding organisation towards the achievement requirements of another qualification, credits can only be transferred between qualifications and awarding organisations subject to the structure of the receiving qualification.

### 1.8 The qualification structure

The qualification structures specify the credits that need to be achieved through completion of particular units for a qualification to be awarded. They set out the credit value of the qualification, credits from mandatory units and credits from optional units, credits from equivalent units and exemptions along with time limits on the process of credit accumulation or exemptions.

**Exemptions** are detailed within the qualification structure and set out any exemption from the requirement to achieve credit for units that candidates can claim, based on certificated achievement outside the CBQ deemed to be of equivalent value to a CBQ unit or units

Time limits on the process of credit accumulation or exemptions are set out for each CBQ unit within the qualification structure. MERCURIUS POLITICUS CBQ units have a time limit of 24 months from achievement for use within a CBQ.

### 1.9 Career development within the engineering construction industry

The MERCURIUS POLITICUS's Apprenticeship programme is its main vehicle for recruiting and training young people to meet the future skills requirements of the industry. Qualifications at Levels 5, 6 and 7 are often an integral part of this scheme.

The MERCURIUS POLITICUS provides an alternative training route towards qualifications for those who have not completed an apprenticeship but seek to have their competence validated. Information on the scheme is available on request from MERCURIUS POLITICUS offices.

For more information about career progression you can go to the MERCURIUS POLITICUS website.

# 2. Qualification Structure

# 2.1 Diploma in Project Control, Estimating, Planning and Cost Engineering at QCF Level 5

To attain this qualification, candidates must attain all EIGHT of the Mandatory Units. Plus a minimum of a further THREE Optional Units from the Optional Unit Group

#### **MANDATORY UNITS**

Ref. Number	Unit Title	Level	Credit
PC - S 17	Contribute to effective Project Control, Estimating, Planning, Cost Engineering or Commercial Support relationships.	5	7
PC - S 62	Follow quality assurance procedures in carrying out project control, estimating, planning, cost engineering or commercial support activities.	5	8
PC - S 63	Obtain and organise information for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.	5	10
PC - S 64	Process project control, estimating, planning, cost engineering or commercial support data using information technology (IT).	5	13
PC - S 65	Prepare documents for the execution of project control, estimating, planning, cost engineering or commercial support activities.	5	6
PC - S 66	Plan and organise assigned project control, estimating, planning, cost engineering or commercial support tasks.	4	4
PC - S 67	Implement a personal professional project control, estimating, planning, cost engineering or commercial support competence development plan.	4	4
PC - S 68	Work to the organisation's procedures and practices relating to ethical and behavioural issues in Project Control, Estimating, Planning, Cost Engineering or Commercial Support.	5	6

#### **OPTIONAL UNITS**

Ref. Number	Unit Title	Level	Credit
PC - S 69	Support the preparation of project resource estimates and plans for project control, estimating, planning, cost engineering or commercial support.	5	12
PC - S 70	Support the preparation of budgets for control purposes for project control, estimating, planning, cost engineering or commercial support.	5	12
PC - S 71	Support the preparation of the programmes and schedules for project control, estimating, planning, cost engineering or commercial support control purposes.	5	12
PC - S 72	Monitor and report on progress and the use of resources through project control, estimating, planning, cost engineering or commercial support activities.	5	12
PC - S 73	Support the forecasting and reporting of final resource usage and schedule completion dates through project control, estimating, planning, cost engineering or commercial support activities.	5	11
PC - S 74	Support the control of scope changes through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.	5	10

#### 2.2 Unit summaries

#### Project Control, Estimating, Planning and Cost Engineering at QCF Level 5

#### **Mandatory Units**

### PC – S 17: Contribute to effective Project Control, Estimating, Planning, Cost Engineering or Commercial Support relationships.

This unit enables the assessment of the competence in developing and maintaining Project Control, Estimating, Planning, Cost Engineering or Commercial Support relationships to assist in delivery of assigned responsibilities to the benefit of the project, function or organisation overall.

# PC – S 62: Follow quality assurance procedures in carrying out Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

This unit enables the assessment of the competence in following QA procedures in their role of supporting colleagues carrying out Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

## PC – S 63: Obtain and organise information for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

This unit enables the assessment of the competence to obtain and organise Project Control, Estimating, Planning, Cost Engineering or Commercial Support information in a support role.

# PC – S 64: Process Project Control, Estimating, Planning, Cost Engineering or Commercial Support data using information technology (IT).

This unit enables the assessment of the competence in having the necessary IT skills to support the Project Control, Estimating, Planning & Cost Engineering functions.

# PC – S 65: Prepare documents for the execution of Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

This unit enables the assessment of the competence to prepare documents that are factually accurate, and in which the spelling and grammar are appropriate and in which the layout of text, tables and graphics effectively conveys the information to be communicated for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

### PC – S 66: Plan and organise assigned Project Control, Estimating, Planning, Cost Engineering or Commercial Support

This unit enables the assessment of the learner's competence in planning and organising a set of assigned Project Control, Estimating, Planning, Cost Engineering or Commercial Support tasks.

## PC – S 67: Implement a personal professional Project Control, Estimating, Planning, Cost Engineering or Commercial Support competence development plan.

This unit enable the assessment of the competence in the implementation and ongoing maintenance of a personal development plan to enhance own functional skills, knowledge and competence in Project Control, Estimating, Planning, Cost Engineering or Commercial Support, on a continuous basis.

# PC- S 68: Work to the organisation's procedures and practices relating to ethical and behavioural issues in Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

This unit enables the assessment of the competence to work within a framework defining the way in which the organisation deals with ethical, behavioural, confidentiality and personnel issues relating to the Project Control, Estimating, Planning, Cost Engineering and Commercial Support functions.

#### **Optional Units**

# PC – S 69: Support the preparation of project resource estimates and plans for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

This unit enables the assessment of the competence in supporting and assisting the task of estimating resources and developing the plans for the acquisition and use of those resources for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

# PC – S 70: Support the preparation of budgets for control purposes for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.

This unit enables the assessment of the competence to support the preparation of the budgets for resources needed to meet defined Project Control, Estimating, Planning, Cost Engineering or Commercial Support objectives.

# PC – S 71: Support the preparation of the programmes and schedules for Project Control, Estimating, Planning, Cost Engineering or Commercial Support control purposes.

This unit enables the assessment of the learner's competence to support and assist in the preparation of the schedules for controlling the timing and sequencing of resources and project outcomes through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

### PC – S 72: Monitor and report on progress and the use of resources through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

This unit enables the assessment of the competence to monitor and report on the key Project Control, Estimating, Planning, Cost Engineering or Commercial Support parameters of progress and resource usage.

# PC-S 73: Support the forecasting and reporting of final resource usage and schedule completion dates through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

This unit enables the assessment of the competence to support the forecasting and reporting of final resource usage and schedule completions through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities, for a life cycle stage.

# PC – S 74: Support the control of scope changes through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

This unit enables the assessment of the competence to support and assist with the control of changes to the work scope through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Contribute to effective Project Control, Estimating, Planning, Cost Engineering or Commercial Support relationships	
QCF Level	5	
QCF Credit value	7	
Learning outcomes	Assessment criteria	
The learner will:  1. Contribute to effective working relationships: within the project, functional teams and other associated organisations	<ol> <li>The learner can:</li> <li>Deal with disagreements in an amicable and constructive way, to ensure good relationships are maintained.</li> <li>Maintain good relationships in the interests of performing assigned responsibilities.</li> <li>Keep others informed about work plans or activities that affect them.</li> <li>Seek assistance from others in a polite and courteous way without causing undue disruption to normal work activities.</li> <li>Respond in a timely and positive way when others ask for help or information.</li> </ol>	
2. Understand the creation and maintenance of working relationships.	<ul> <li>2.1 Explain how to create and maintain working relationships.</li> <li>2.2 Explain how problems can have a negative affect on the effectiveness of working relationships.</li> </ul>	
3. Understand the group of people they need to communicate and work with.	<ul> <li>3.1 Describe the Lines of communication within the project or function and between participants.</li> <li>3.2 Describe the responsibilities and authority of project or functional team participants.</li> <li>3.3 Describe the groups and individuals with whom they need to maintain good working relationships.</li> </ul>	

Additional information	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in developing and maintaining Project Control, Estimating, Planning, Cost Engineering or Commercial Support relationships to assist in delivery of assigned responsibilities to the benefit of the project, function or organisation overall.
	"'Colleagues" are any person the learner must have a working relationship with regardless of status, position, organisation or function they belong to.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 17
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support .
	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.
	There are no mandatory workplace observations for this unit.
	Competence at level 5 has to be demonstrated with:  1. Colleagues
	The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and
	Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.
	Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Follow quality assurance procedures in carrying out Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
QCF Level	5
QCF Credit value	8
Learning outcomes	Assessment criteria
The learner will:  1. Apply quality assurance procedures to your support activities.	<ul> <li>The learner can:</li> <li>1.1 Gather, process and record information and data in accordance with the quality assurance procedures specified for the execution of assigned duties.</li> <li>1.2 Assess own task outcomes and performance against the requirements of the defined procedures.</li> <li>1.3 Identify non-conformances of which they become aware and advise those in a position of authority to organise corrective action.</li> </ul>
Support quality assurance auditing and reporting processes.	2.1 Produce and maintain records of assigned activities that meet the requirements of the quality system.
3. Understand how to comply with the Business QA Processes and framework and how procedures can be modified if needed.	<ul> <li>3.1 Describe the quality assurance procedures applicable to the role.</li> <li>3.2 Describe how to modify an existing procedure.</li> </ul>
4. Understand the basis of Business QA Processes and framework.	<ul> <li>4.1 Describe sources of information for quality assurance including: the codes, standards and techniques used by the organisation.</li> <li>4.2 Describe quality assurance accreditations held by the organisation and the purpose of accreditation.</li> </ul>

Additional information	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in following QA procedures in their role of supporting colleagues carrying out Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 62
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
regulatory body (if appropriate)	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.
	There are no mandatory workplace observations for this unit.
	Competences at level 5 have to be demonstrated with:  1. Quality assurance procedures
	2. Non-conformances
	3. Quality audits (2 from 3)
	During project or work implementation
	Carried out by internal specialists
	Carried out by external bodies
	The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and
	Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and
	7 in the QCF must be followed.
	Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Obtain and organise information for Project Control, Estimating, Planning, Cost Engineering or Commercial Support
QCF Level	5
QCF Credit value	10
Learning outcomes	Assessment criteria
The learner will:  1. Obtain and organise information.	<ol> <li>The learner can:</li> <li>Identify the information needed to carry out the day to day functions.</li> <li>Establish that the sources of information are sufficiently reliable to meet current and likely future requirements.</li> <li>Obtain, record and classify information making effective use of available resources.</li> <li>Confirm the accuracy, relevance and sufficiency of the information obtained for cost or schedule control purposes.</li> </ol>
Take action to overcome and improve deficiencies in information.	<ul> <li>2.1 Identify the information needed to make specified improvements in operations.</li> <li>2.2 Take action to deal with situations where the information is not suitable for the purposes for which it is required.</li> </ul>
3. Understand the importance of information quality.	<ul> <li>3.1 Describe how to assess the accuracy, relevance and sufficiency of the information required, and who to consult.</li> <li>3.2 Explain the importance of effective management and currency.</li> <li>3.3 Describe the available sources of information and how its validity and integrity can be confirmed.</li> </ul>
4. Understand the purpose of data feedback.	<ul> <li>4.1 Describe how day-to-day Project Control, Estimating, Planning, Cost Engineering or Commercial Support information and data is used.</li> <li>4.2 Describe the use of feed back data, gathered for the purposes of making operational improvements.</li> </ul>

This unit enables the assessment of the learner's competence to obtain and organise Project Control, Estimating, Planning, Cost Engineering or Commercial Support information in a support role.
Derived from MERCURIUS POLITICUS NOS Unit PC 63
This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competences at Level 5 have to be demonstrated with:  1. Sources of information 2. Types of information 3. Methods of obtaining information The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.  Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Process Project Control, Estimating, Planning, Cost Engineering or Commercial Support data using information technology (IT)
QCF Level	5
QCF Credit value	13
Learning outcomes	Assessment criteria
The learner will:  1. Support processing of data using a range of IT systems.  This includes the collection and processing of commercial and technical data and reporting status.	<ul> <li>The learner can:</li> <li>1.1 Enter, process and extract information and data using the IT systems established.</li> <li>1.2 Handle, edit and format information and data provided from a range of sources.</li> <li>1.3 Produce outputs and information in the formats required by both the internal and external customers.</li> <li>1.4 Develop their skills so that they are able to apply the range of IT systems determined by the needs of by both the internal and external customers.</li> </ul>
2. Ensure the security of the IT data.	2.1 Implement the specified security measures to protect the confidentiality and integrity of data held in the IT systems with which you are working.
3. Understand the procedures associated with Project Control, Estimating, Planning, Cost Engineering IT data.	<ul> <li>3.1 Describe the procedures and work instructions that must be followed in using the IT systems.</li> <li>3.2 Describe the main attributes of the specified IT systems.</li> <li>3.3 Describe the sources and flow paths for the Project Control, Estimating, Planning, Cost Engineering or Commercial Support information and data.</li> <li>3.4 Describe the security systems and data protection measures in use.</li> </ul>
4. Understand the methods for Project Control, Estimating, Planning, Cost Engineering or Commercial Support IT data manipulation and use.	<ul> <li>4.1 Describe the methods of entering and processing information and data.</li> <li>4.2 Describe the methods of extracting and formatting information and data.</li> <li>4.3 Describe how the output information is used.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in having the necessary IT skills to support the Project Control, Estimating, Planning & Cost Engineering functions.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 64
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competence at Level 5 has to be demonstrated using:  1. Software and IT systems 2. Range of sources 3. Security measures  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.  Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Prepare documents for the execution of Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
QCF Level	5
QCF Credit value	6
Learning outcomes	Assessment criteria
The learner will:  1. Produce a range of Project Control, Estimating, Planning, Cost Engineering or Commercial Support documents.	<ol> <li>The learner can:</li> <li>1.1 Prepare documents in accordance with the required layout, content, conventions and organisation 'house style'.</li> <li>1.2 Prepare and issue documents within agreed deadlines.</li> <li>1.3 Prepare correspondence and text in which the content and language effectively conveys the meaning and information intended.</li> <li>1.4 Adhere to defined procedures and practices for security, confidentiality, checking, version control and distribution of documents.</li> <li>1.5 Check documents for accuracy and completeness and make corrections when necessary.</li> </ol>
Understand the use of documents for communication and record.	<ul><li>2.1 Describe how to effectively use language, graphics, diagrams and numerical data.</li><li>2.2 Describe document conventions and 'house style'.</li></ul>
3. Understand the control of Project Control, Estimating, Planning, Cost Engineering or Commercial Support documents and records.	<ul> <li>3.1 Describe the security, confidentiality and distribution of documents.</li> <li>3.2 Describe the processes for collation, reproduction and version control of documents.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to prepare documents that are factually accurate, and in which the spelling and grammar are appropriate and in which the layout of text, tables and graphics effectively conveys the information to be communicated for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 65
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competences at Level 5 have to be demonstrated with:  1. Documents 2. Content  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Plan and organise assigned Project Control, Estimating, Planning, Cost Engineering or Commercial Support tasks
QCF Level	4
QCF Credit value	4
Learning outcomes	Assessment criteria
The learner will:  1. Effectively plan and organise assigned tasks.	<ol> <li>The learner can:</li> <li>Identify and prioritise routine tasks to meet the needs of the business.</li> <li>Select and apply the appropriate aids to help you manage the routine tasks.</li> <li>Adapt to priority changes and, where necessary, seek authority for changing agreed work sequences and delivery dates.</li> <li>Anticipate problems in meeting deadlines and seek advice.</li> <li>Identify and use sources of help and support when needed to meet specific demands and deadlines.</li> <li>Ensure that all tasks are finalised with data, results and records archived and stored in accordance with defined procedures and practices.</li> </ol>
2. Understand management of time techniques.	<ul><li>2.1 Describe the attributes of the various techniques that can be used to plan and organise a personal work schedule.</li><li>2.2 Describe why time management is important.</li></ul>
3. Understand own scope of work and the related tasks.	3.1 Describe own scope of work and responsibilities in support of the functional activities.

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in planning and organising a set of assigned Project Control, Estimating, Planning, Cost Engineering or Commercial Support tasks.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 66
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.  There are no mandatory workplace observations for this unit.  Competence at level 4 has to be demonstrated with:  1. Planning and scheduling aids (in computerised or manual form) (3 out of 4)  Diaries and organisers  Plans and schedules  Action plans  Punch lists  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Implement a personal professional Project Control, Estimating, Planning, Cost Engineering or Commercial Support competence development plan
QCF Level	4
QCF Credit value	4
Learning outcomes	Assessment criteria
The learner will:  1. Implement and continuously maintain and review a personal plan to enhance professional skills, knowledge and competence.	<ol> <li>The learner can:</li> <li>Keep personal records of own competence, knowledge and skills enhancement to support reviews of progress and achievement</li> <li>Use opportunities from within the working environment that provide bases for planned professional skills and knowledge enhancement.</li> <li>Respond to functional and human resources management requirements to carry out appropriate off and on-site taught knowledge acquisition necessary to meet the needs of the organisation.</li> </ol>
Understand the network of people and resources required to communicate with to maintain competence development.	<ul> <li>2.1 Describe the opportunities within the organisation for competence development.</li> <li>2.2 Describe the network of people and sources of advice and information relevant to meeting learning needs.</li> <li>2.3 Describe the training policies used by the organisation.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in the implementation and ongoing maintenance of a personal development plan to enhance own functional skills, knowledge and competence in Project Control, Estimating, Planning, Cost Engineering or Commercial Support, on a continuous basis.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 67
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support
regulatory body (II appropriate)	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.
	There are no mandatory workplace observations for this unit.
	Competences at Level 4 have to be demonstrated with:  1. Opportunities may include (3 from 4)  Self study of relevant material  Training on and off site  Guidance from colleagues  Assessed vocational programmes leading to formal qualifications  2. Skills & knowledge enhancement (3 from 5)  Project Control, Estimating, Planning & Cost Engineering Technical skills  Inter-personal skills  Project Control, Estimating, Planning & Cost Engineering Knowledge, including information sources  Formal academic and vocational programmes  Understanding of the organisation's processes for conducting business/delivering projects  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and  Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.
	Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Work to the organisation's procedures and practices relating to ethical and behavioural issues in Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
QCF Level	5
QCF Credit value	6
Learning outcomes	Assessment criteria
The learner will:  1. To work within a framework of laid down rules, guidelines and procedures relating to ethical and behavioural issues.	The learner can:  1.1 Comply with the organisations laid down rules, guidelines and procedures.  1.2 Identify situations likely to give rise to breaches of rules, guidelines and procedures and refer them to those with authority for dealing with the issues.
2. Understand the implications of key ethical practices in the organisation.	<ul> <li>2.1 Describe where to find organisation's rules, procedures and guidelines for dealing with ethical and behavioural issues.</li> <li>2.2 Describe what constitutes a duty of care.</li> <li>2.3 Describe the Health, Safety and Environmental policies and practices applicable to the organisation and its business operations.</li> </ul>
3. Understand where to find key ethical and legal guidance.	3.1 Describe where to get guidance and advice from within the organisation in the event of uncertainty on questions of law, ethics and values.

This unit enables the assessment of the learner's competence to work within a framework defining the way in which the organisation deals with ethical, behavioural, confidentiality and personnel issues relating to the Project Control, Estimating, Planning, Cost Engineering and Commercial Support functions
Derived from MERCURIUS POLITICUS NOS Unit PC 68
This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessors are to ensure candidates demonstrate an awareness of hazards in the workplace and the organisation's control measures to minimising risks to personnel in the workplace.  There are no mandatory workplace observations for this unit.  Competences at Level 5 have to be demonstrated with:  1. Rules, guidelines and procedures for those with authority  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and  Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Support the preparation of project resource estimates and plans for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
QCF Level	5
QCF Credit value	12
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist with estimating resources and developing the plans for the acquisition and use of those resources.	The learner can:  1.1 Apply the methods specified for estimating resources and preparing plans.  1.2 Obtain clarification from the appropriate people when methods and instructions are incomplete or unclear.  1.3 Contribute to the preparation of estimates and plans with the required level of accuracy and content.
2. Record and report the assumptions that underpin the resource estimates and plans.	<ul> <li>2.1 Record and report the assumptions made in assisting in the development of the estimates and plans.</li> <li>2.2 Record allowances made for uncertainties.</li> <li>2.3 Report and present the results of their activities in estimate and plan preparation to the appropriate people.</li> </ul>
3. Understand the various types of estimates and plans.	<ul><li>3.1 Describe the types of estimates used in the organisation.</li><li>3.2 Describe the types of plans used in the organisation.</li></ul>
4. Understand the basis of estimates and plans.	<ul> <li>4.1 Describe the sources of data from within and without the organisation.</li> <li>4.2 Describe the most significant areas of estimates and their impacts on costs and schedules.</li> <li>4.3 Describe the meaning of the terms direct costs, indirect costs, contingencies and allowances as applied in the organisation.</li> <li>4.4 Describe the relationships between effort input to scope definition and the levels of accuracy that can be expected of estimates and plans.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence in supporting and assisting the task of estimating resources and developing the plans for the acquisition and use of those resources for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 69
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competence at Level 5 has to be demonstrated using:  1. Resources (3 from 6)  People  Materials and equipment  Facilities  Finance and cash  Data and data handling systems  Services from within the organisation and from outside the organisation  2. Appropriate people (2 from 3)  Colleagues  Senior Project Control, Estimating, Planning & Cost Engineering functional staff  Functional and project managers  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and  Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.
	Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Support the preparation of budgets for control purposes for Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
QCF Level	5
QCF Credit value	12
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist the preparation of the budgets for resources required to meet defined objectives.	<ul> <li>The learner can:</li> <li>1.1 Verify that the estimated resources are able to meet the needs of specified aspects of the works.</li> <li>1.2 Use resource estimates, project schedules and work breakdown structures to support the development of budgets.</li> <li>1.3 Provide budget information for project cash flow or resource profile development.</li> </ul>
2. Recognise when corrective action is needed.	2.1 Recognise where potential inadequacies may be apparent and advise those with the authority to initiate corrective actions if required.
Understand the link between budget accuracy and effort.	<ul> <li>3.1 Explain the time, cost and quality relationships and their influence on the accuracy of budgets.</li> <li>3.2 Describe the relationships between scope definition, actual spend and progress, and the accuracy of the budgets.</li> </ul>
Understand basic consideration associated with preparing budgets for control purposes.	<ul> <li>4.1 Describe the meaning of the terms direct costs, indirect costs, contingencies and allowances as applied in the organisation.</li> <li>4.2 Describe the importance of budget version control and means of achieving it.</li> <li>4.3 Describe what budgets need to contain for them to be used effectively for cost control and reporting.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to support the preparation of the budgets for resources needed to meet defined Project Control, Estimating, Planning, Cost Engineering or Commercial Support objectives.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 70
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competences at Level 5 have to be demonstrated with:  1. Resources (3 from 6):  People.  Materials and equipment.  Facilities  Finance and cash.  Data and data handling systems.  Services from within the organisation and from outside the organisation  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and  Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Support the preparation of the programmes and schedules for Project Control, Estimating, Planning, Cost Engineering or Commercial Support control purposes
QCF Level	5
QCF Credit value	12
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist the preparation of schedules for controlling the timing and sequencing of resources and project outcomes.	The learner can:  1.1 Verify that work activity sequences and resources available have been identified in sufficient detail for the schedules to be produced.  1.2 Advise those with the authority to initiate corrective actions where the information on activity sequences and resources may be inadequate for preparing the schedules.  1.3 Develop specified elements of the programmes and schedules to meet the project requirements.
Understand the terminology associated with Critical Path Analysis.	2.1 Describe the application of events, activities, logic, work break down structure, critical path and float.
Understand the process for preparation and maintenance of schedules.	3.1 Describe the methods of preparing, structuring and presenting programmes and schedules 3.2 Describe the process of logic network development. 3.3 Describe the process of resource smoothing and the effects on programmes and schedules 3.4 Describe what planning and scheduling IT systems are used within the organisation. 3.5 Describe what schedule version control is and the means of achieving it.

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to support and assist in the preparation of the schedules for controlling the timing and sequencing of resources and project outcomes through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 71
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.
	There are no mandatory workplace observations for this unit.
	Competences at Level 5 have to be demonstrated with:  1. Resources (3 from 6)  • People  • Materials and equipment  • Facilities  • Finance and cash  • Data and data handling systems  • Services drawn from within the organisation and from outside the organisation  2. Elements of schedules (4 from 9)  • Develop  • Design
	Purchase Install Test Operations and maintenance Rectify Close-out and handover Decommissioning and disposal
	The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.  Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance.

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Monitor and report on progress and the use of resources through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
QCF Level	5
QCF Credit value	12
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist the monitoring and reporting on progress and resource usage.	The learner can:  1.1 Use designated systems to process and analyse progress, resource usage and commitment data.  1.2 Review and report on resource usage, commitment and progress data.  1.3 Identify and report on variances between planned and actual achievements.
Verify resource monitoring systems and processes are working as required.	<ul> <li>2.1 Identify where the systems and processes for collecting resource usage and progress data are not working effectively and advise those with the authority to initiate corrective actions if required.</li> <li>2.2 Confirm necessary access to systems and data is available</li> </ul>
Understand the progress and resource usage monitoring process.	<ul> <li>3.1 Describe means of assessing resource usage, commitment and progress data against budgets and plans.</li> <li>3.2 Describe means of reporting and presenting resource usage, commitment and progress data and information.</li> </ul>
4. Understand the functionality of the progress and resource usage systems and methods.	<ul> <li>4.1 Describe key aspects of the systems and methods for the collection and collation of resource usage and progress data.</li> <li>4.2 Describe use of the work breakdown structure as a basis for reporting resource usage and progress.</li> <li>4.3 Describe the role of key performance indicators and metrics associated with resource usage.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to monitor and report on the key Project Control, Estimating, Planning, Cost Engineering or Commercial Support parameters of progress and resource usage.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 72
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.  There are no mandatory workplace observations for this unit.  Competences at Level 5 have to be demonstrated with:  1. Progress 2. Variances 3. Resource  The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.  Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Support the forecasting and reporting of final resource usage and schedule completion dates through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
QCF Level	5
QCF Credit value	11
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist the forecasting and reporting of resource usage and schedule completions.	The learner can:  1.1 Use the specified systems for the prediction of resource usage and schedule completion.  1.2 Support the review and analysis of predicted final conditions.  1.3 Contribute to the reporting of final resource usage and schedule completion.
Verify forecasting systems and processes are working as required.	<ul> <li>2.1 Identify where the systems and processes for forecasting are not working effectively and advise those with the authority to initiate corrective actions if required.</li> <li>2.2 Confirm necessary access to systems and data is available.</li> </ul>
3. Understand forecasting methods and how to obtain guidance.	<ul> <li>3.1 Describe resource usage and progress forecasting methods used in the organisation.</li> <li>3.2 Describe possible sources of specialist advice to assist in producing reliable and accurate forecasts.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to support the forecasting and reporting of final resource usage and schedule completions through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities, for a life cycle stage.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 73
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.
	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.
	There are no mandatory workplace observations for this unit.
	Competence at Level 5 has to be demonstrated using:
	Progress of Work achievements, Physical actions and Mental actions
	Variances include (3 from 6)     Misallocation
	Timing not to schedule
	• Under or over expenditure
	Under or over commitment
	Forecast cost variances
	Scope changes
	3. Resource usage of and commitments for (3 from 6)
	• People
	<ul> <li>Materials and equipment</li> <li>Facilities</li> </ul>
	• Finance and cash
	Data and data handling systems
	Services drawn from within the organisation and from outside the organisation
	The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and
	Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and
	7 in the QCF must be followed.
	Further guidance on this MERCURIUS POLITICUS unit can be found on the Assessment Guidance

### 3. Project Control, Estimating, Planning and Cost Engineering QCF Units

Title	Support the control of scope changes through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities
QCF Level	5
QCF Credit value	10
Learning outcomes	Assessment criteria
The learner will:  1. Support and assist in the amendment of schedules and budgets to incorporate scope changes.	The learner can:  1.1 Use the established systems and methods to quantify the impact of changes on resource requirements and schedules.  1.2 Review, analyse and report to the appropriate people on the impact of scope changes on resources, programmes and schedules.
Verify change control systems and processes are working as required.	<ul> <li>2.1 Identify where the systems and processes for change control are not working effectively and advise those with the authority to initiate corrective actions if required.</li> <li>2.2 Confirm necessary access to change control systems and data is available.</li> </ul>
3. Understand the methods of quantifying and managing scope changes.	<ul> <li>3.1 Describe systems and methods for quantifying scope changes.</li> <li>3.2 Describe the methods that can be used for maintaining control of scope changes.</li> </ul>

Additional information about this unit	
Unit purpose and aim(s)	This unit enables the assessment of the learner's competence to support and assist with the control of changes to the work scope through Project Control, Estimating, Planning, Cost Engineering or Commercial Support activities.
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)	Derived from MERCURIUS POLITICUS NOS Unit PC 74
Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	This unit must be assessed in the occupational area of Project Control, Estimating, Planning, Cost Engineering or Commercial Support.  Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from worked-based activities.
	There are no mandatory workplace observations for this unit.
	Competences at Level 5 have to be demonstrated with:  1. Changes in scope may include those which impact on (5 from 9):  Developments  Design  Purchasing.  Installation.  Testing.  Operations and Maintenance.  Rectification.  Close-out and handover.  Decommissioning and disposal  2. Appropriate people (2 from 3):  Colleagues.
	<ul> <li>Colleagues.</li> <li>Senior Project Control, Estimating, Planning &amp; Cost Engineering functional staff.</li> <li>Functional and project managers</li> </ul>
	<ul> <li>3. Resource requirements (3 from 6):</li> <li>People.</li> <li>Materials and equipment.</li> <li>Facilities.</li> <li>Finance and cash.</li> <li>Data and data handling systems.</li> <li>Services drawn from within the organisation and from outside the organisation</li> </ul>
	The assessment guidance found in the latest version of MERCURIUS POLITICUS Assessment Strategy for Craft and Technician Vocational Qualifications at Levels 2 and 3 in the NQF and QCF, and at Levels 5, 6 and 7 in the QCF must be followed.
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