Unit L19	Create grassed and planted areas
Element L19.1 Element L19.2 Element L19.3 Element L19.4 Element L19.5	Set and mark out sites ready for operations Evaluate ground and environmental conditions Prepare sites for soft landscape establishment Establish planted areas Establish grass swards

#### **About this unit**

This unit is about establishing mixed grassed and planted areas. It assumes that the objectives and tolerances for the site are already worked out and that your work begins with setting and marking out. You are expected to work effectively throughout the unit with others: colleagues and subcontractors.

The sites involved may include:

- landscape construction
- planting
- areas for restoration

In evaluating ground conditions, you are required to identify:

- substrate structure
- texture and condition
- drainage characteristics
- pH
- any pest, disease and weed problems
- any nutrient deficiencies
- ground and air pollutants
- the micro-climate

Preparation of the site should take account of each of the above.

The types of plants to be established may include

- trees
- shrubs
- container grown, bare root and root balled.

The establishment of grass may be done by:

- laying turf, or
- broadcasting seed

# Element L19.1 Set and mark out sites ready for operations

# What you must be able to do:

- 1 identify objectives and tolerances for the **site** correctly
- 2 achieve objectives to required tolerances
- 3 use **site** markings to facilitate the next stage of operations
- 4 maintain equipment in a safe and effective condition throughout
- 5 maintain effective working relations with all relevant people throughout
- 6 minimise waste, damage and adverse environmental impact throughout
- 7 deal with any problems effectively and safely should any occur

#### This standard covers:

- A. sites:
- (i) areas for soft landscape construction
- (ii) areas for planting
- (iii) areas for restoration

- (a) how to interpret landscape plans
- (b) the methods and equipment for setting out in horizontal and vertical planes
- (c) the mathematical and geometric principles used in setting out
- (d) the types of marking materials and factors affecting their selection
- (e) how site markings can facilitate next stages of operations
- (f) the methods of maintaining the range of equipment typically used
- (g) the possible types of adverse environmental impact and how to avoid it
- (h) what problems are likely to occur and how to manage these
- (i) the methods of detecting underground services
- (j) the principles and application of risk assessment
- (k) the statutory health and safety requirements and codes of practice relevant to setting and marking out

# Element L19.2 Evaluate ground and environmental conditions

# What you must be able to do:

- make sure the purpose and scope of your evaluation is consistent with the proposed use for **site**
- 2 use evaluation methods that are consistent with the agreed purpose and scope
- 3 evaluate the ground and environmental conditions accurately
- 4 record findings and methods so that they can be used by others
- 5 maintain equipment in a safe and effective condition throughout
- leave the **site** in a tidy and undamaged condition following operations
- 7 maintain effective working relations with all relevant people throughout
- 8 minimise waste and adverse environmental impact
- 9 deal with problems efficiently and safely should any occur

#### This standard covers:

# A. sites:

- (i) areas for soft landscape construction
- (ii) areas for planting
- (iii) areas for restoration

# B. ground and environmental conditions:

- (i) substrate structure
- (ii) substrate texture and conditions
- (iii) drainage characteristics
- (iv) pH
- (v) pest, disease and weed problems
- (vi) nutrient deficiencies
- (vii) ground and air pollutants
- (viii) microclimate

- (a) the principles and methods of measurement of ground and environmental conditions
- (b) the range of methods available to evaluate the implications of measurements taken and to which situations they may be appropriate
- (c) the effects of varying ground and environmental conditions on plant establishment and growth
- (d) the importance of keeping accurate records
- (e) what environmental pollution may occur and how to avoid it
- (f) the maintenance of equipment typically used in this work
- (g) what contingencies may occur and how to handle these effectively
- (h) the sources of information and analysis relating to ground and environmental assessment
- (i) the principles and application of risk assessment
- (j) the statutory health and safety requirements and codes of practice
- (k) the methods of monitoring health and safety requirements

# Element L19.3 Prepare sites for soft landscape establishment

# What you must be able to do:

- prepare the **site's** substrate to a condition, nutrient status, profile and pH appropriate to specifications and function
- 2 minimise adverse environmental conditions
- maintain the **site** in a suitable condition for planting and sward establishment as planned
- 4 monitor **site** main services continually throughout operations
- 5 keep equipment in a safe and effective condition throughout
- 6 keep the **site** undamaged and ready for the next stage of operations
- 7 maintain effective working relations with all relevant people throughout
- 8 minimise waste and adverse environmental impact throughout
- 9 deal with problems efficiently, effectively and safely should any occur

#### This standard covers:

#### A. sites:

- (i) areas for soft landscape construction
- (ii) areas for planting
- (iii) areas for restoration

- (a) the principles and methods of site preparation
- (b) the principles and application of risk assessment
- (c) the range of preparation methods to achieve the required conditions
- (d) why the chosen methods are most appropriate
- (e) what adverse environmental impact may be brought about and how to avoid this
- (f) the methods to check that the site is ready for planting
- (g) the types of equipment which may be used and how to ensure the proper maintenance of these
- (h) what hazards may arise from services on site and how to minimise these
- (i) what problems may occur and how to deal with these effectively
- (j) the statutory health and safety requirements and codes of practice relevant to preparation of sites

# Element L19.4 Establish planted areas

# What you must be able to do:

- 1 identify and mark out planting sites accurately before beginning operations
- check the specification and health of **plants** before planting, and reject unacceptable specimens
- maximise the health, vigour and physical condition of **plants** through handling and planting methods
- 4 provide support and protection to the **plants**
- 5 leave the site in a tidy and undamaged condition following operations
- 6 maintain equipment in safe and effective condition throughout
- 7 maintain effective working relations with all relevant people throughout
- 8 minimise waste and adverse environmental impact throughout
- 9 deal with problems efficiently, effectively and safely should any occur

#### This standard covers:

- A. plants:
- (i) trees
- (ii) shrubs
- (iii) container grown
- (iv) field grown

- (a) How to identify a representative sample of plants relevant to your workplace
- (b) the common and botanical names of plants
- (c) the factors affecting the timing and method of planting
- (d) the causes of damage and drying out and their prevention
- (e) methods of support and protection and how to apply them
- (f) the initial maintenance requirements for newly established planted areas
- (g) the principles and application of risk assessment
- (h) the methods of assessing plant health
- (i) the damage which may occur when handling plants and how to minimise this
- (j) the range of equipment which may be used in these operations and how to ensure its effective maintenance
- (k) what adverse environmental impact may occur and how to avoid this
- (I) what problems could affect operations and how to handle these effectively
- (m) the statutory health and safety requirements and codes of practice relevant to establishing planted areas

# Element L19.5 Establish grass swards

# What you must be able to do:

- 1 mark out sites accurately before beginning operations
- 2 select plant material appropriate to intended purpose
- 3 check the specification and health of plant material on receipt and reject unacceptable material
- 4 use handling and establishment methods which maximise the health, vigour and physical condition of the sward
- 5 provide protection which is appropriate and effective
- leave the site in a tidy and undamaged condition following operations
- 7 maintain equipment in a safe and effective condition throughout
- 8 minimise waste and adverse environmental impact throughout
- 9 deal with problems efficiently, effectively and safely should any occur

#### This standard covers:

- A. plant material:
- (i) turf
- (ii) seed

- (a) how to identify a representative sample of grasses relevant to your workplace
- (b) The common and botanical names of plants
- (c) the factors affecting the timing and methods of establishment
- (d) the methods of assessing the health of turf
- (e) the safe handling techniques
- (f) the causes of damage and drying out and their prevention
- (g) the methods of protection and their application
- (h) the initial maintenance requirements for newly established swards
- (i) the principles of selecting and combining grass species for different applications
- (j) the principles of selecting turf and seeding mats for different applications
- (k) the principles and application of risk assessment
- (I) what adverse environmental conditions may occur and how to minimise these
- (m) what contingencies may affect operations and how to handle these effectively
- (n) the statutory health and safety requirements and codes of practice relevant to the establishment of swards

Unit L20	Plan the maintenance of sports turf areas
Element L20.1 Element L20.2 Element L20.3	Plan and ensure the maintenance of sports turf areas Plan and ensure the repair and renovation of sports turf areas Plan and set out sports areas

# **About this unit**

This unit requires you to plan the maintenance of sports turf areas, for example:

- football and rugby pitches
- cricket wickets
- tennis or lacrosse courts
- athletic tracks
- golf courses
- race courses

Throughout the unit you must demonstrate you can work effectively with others.

Operations covered include: to develop a maintenance plan for:

- cutting and edging
- weed, pest and disease control
- application of fertiliser
- aeration
- top dressing
- switching/brushing
- over seeding
- inserting turf
- repairing edges
- scarifying / verticutting
- irrigation
- rolling
- setting out equipment appropriate to the sport

# Element L20.1 Plan and ensure the maintenance of sports turf areas

# What you must be able to do:

- 1 make sure your maintenance plans are consistent with the purpose and function of the sports turf and any specific requirements
- 2 implement **maintenance operations** as planned
- assess the results of **maintenance operations**, ensuring the agreed objectives and standards have been achieved
- 4 monitor **maintenance operations** so as to minimise risk to the public and operators
- 5 leave the site in a tidy and undamaged condition following operations
- 6 maintain effective working relations with all relevant people throughout
- 7 keep unnecessary waste and unwanted impact on the environment to a minimum

#### This standard covers:

- A. maintenance operations:
- (i) cutting
- (ii) edging
- (iii) weed, pest and disease control
- (iv) fertiliser application
- (v) aeration
- (vi) top dressing
- (vii) switching/brushing
- (viii) scarifying/verticutting
- (ix) irrigation
- (x) rolling

- (a) the purposes and functions of sports turf and how these affect their maintenance
- (b) the principles and methods relating to the choice and operation of machinery for sports turf maintenance
- (c) consideration of soil types and condition in relation to sports turf management
- (d) considerations relating to choice of mowing regimes and other maintenance operations
- (e) the principles of identifying turf's pathological and physiological disorders
- (f) the principles and techniques relating to the effects, choice and application of fertilisers
- (g) the methods of monitoring and assessing the effects of sports turf management
- (h) what waste and adverse environmental impact may occur and how to minimise these
- (i) the typical problems that may occur and how to handle these effectively
- (j) the statutory requirements for the application of pesticides
- (k) the principles and the application of risk assessment

# Element L20.2 Plan and ensure the repair and renovation of sports turf areas

# What you must be able to do:

- ensure plans are consistent with the purpose and function of the sports turf and the standards and objectives of repair and renovation
- 2 implement **repair and renovation operations** as planned
- assess the results of **repair and renovation operations**, ensuring that agreed objectives and standards have been achieved
- 4 assess and check the need for protection is being met
- 5 minimise the risk to public and staff throughout
- 6 keep the site is in an undamaged and tidy condition following operations
- 7 maintain equipment in a safe and effective condition throughout
- 8 minimise waste and adverse environmental impact

#### This standard covers:

# A. repair and renovation operations:

- (i) over seeding
- (ii) inserting turf
- (iii) repairing edges

- (a) the considerations relating to the timing of operations.
- (b) the factors affecting the type and extent of repairs
- (c) the considerations of soil type and condition in relation to repair and renovation
- (d) the principles and application of risk assessment
- (e) the purpose and functions of sports turf and how these affect repair and renovation activities, standards and objectives
- (f) the methods of assessing results of repair operations
- (g) the principles and methods of protecting repairs and renovations as necessary
- (h) what risks to the public may be present during repair and renovation activities and how to minimise these
- (i) what waste and adverse environmental impact may occur and how to minimise these
- (j) the typical contingencies and how to handle these effectively
- (k) the statutory health and safety requirements and codes of practice relevant to this work

# Element L20.3 Plan and set out sports areas

# What you must be able to do:

- carry out an initial survey which identifies the type, function and required dimensions of the sports area
- 2 produce accurate plans which are consistent with the rules of the sport
- keep positioning and dimensions of the sports area consistent with the rules of the sport and the function, use and safety of the site
- 4 leave the site in an undamaged and tidy condition following **operations**
- 5 maintain the equipment in a safe and effective condition throughout
- 6 maintain effective working relations with all relevant people throughout
- 7 keep unnecessary waste and unwanted impact on the environment to a minimum

#### This standard covers:

- A. operations:
- (i) marking out
- (ii) setting out equipment

- (a) the factors influencing the positioning of sports areas within the total area available.
- (b) the sources of information on standard sports dimensions.
- (c) the factors influencing the choice and use of marking equipment and materials.
- (d) the principles and application of risk assessment.
- (e) the variety of equipment to be used in such operations and how to ensure the effective maintenance of such equipment.
- (f) what waste and adverse environmental impact may occur and how to minimise these.
- (g) the typical contingencies and how these may be handled effectively.
- (h) the statutory health and safety requirements and codes of practice relevant to this area of work.

# Unit L21 Maintain drainage and irrigation systems Element L21.1 Maintain drainage systems Element L21.2 Maintain irrigation systems

#### **About this unit**

This unit is about maintaining the efficient working of drainage and irrigation systems.

Throughout the unit you must demonstrate you can work effectively with others.

Drainage systems covered may include:

- pipe
- tile
- mole
- open
- single
- multiple

Irrigation systems include those which are:

- mobile
- installed

Surfaces provided for by these systems may include

- hard /porous
- porous
- synthetic
- fine turf
- course turf

# Element L21.1 Maintain drainage systems

# What you must be able to do:

- 1 inspect and assess **drainage systems** according to agreed schedules
- 2 identify any problems with **drainage systems**
- 3 take action to restore **drainage systems** to full effectiveness
- 4 record inspections and work undertaken
- 5 keep surroundings in a tidy and undamaged condition following operations
- 6 maintain effective working relations with all relevant people throughout
- 7 keep unnecessary waste and unwanted impact on the environment to a minimum

# This standard covers:

- A. drainage system:
- (i) pipe
- (ii) tile
- (iv) open

- (a) the schedule of inspections required to identify faults
- (b) how to identify impeded drainage and its causes
- (c) methods to correct impeded drainage
- (d) the factors affecting flow rates in drains
- (e) the principles and calculations relating to drainage specifications
- (f) the principles of drainage design
- (g) the principles and application of risk assessment
- (h) what records need to be kept and why
- (i) what adverse environmental impact and waste may occur and how to minimise these
- (j) the typical problems that may occur and how to manage these effectively
- (k) the statutory health and safety requirements and codes of practice relevant to this area of work

# Element L21.2 Maintain irrigation systems

# What you must be able to do:

- 1 inspect and assess **irrigation systems** and **surfaces** according to agreed schedules
- 2 identify problems with **irrigation systems** and arrange repairs
- 3 record inspections clearly, accurately and promptly
- 4 keep surroundings in a tidy and undamaged condition following operations
- 5 maintain effective working relations with all relevant people throughout
- 6 keep unnecessary waste and unwanted impact on the environment to a minimum

#### This standard covers:

- A. irrigation systems:
- (i) mobile
- (ii) installed
- B. surface:
- (i) hard /porous
- (ii) synthetic
- (iii) turf

- (a) the principles, methods and calculations relating to soil water management
- (b) the principles of design and construction of irrigation systems
- (c) the water source and quality systems for irrigation
- (d) the maintenance requirements for irrigation systems
- (e) the principles and application of risk assessment
- (f) how to arrange repairs when problems occur
- (g) the different maintenance requirements of irrigation equipment
- (h) the different irrigation requirements of surfaces
- (i) the frequency and thoroughness of inspections to identify faults
- (j) what records need to be kept and why
- (k) what adverse environmental impact and waste may occur and how to minimise these
- (I) what contingencies may affect operations and how to handle these effectively
- (m) the statutory health and safety requirements and codes of practice relevant to work of this kind

Unit L26	Estimate resource requirements and programme work
Element L26.1	Estimate the resources required by programmes
Element L26.2	Sequence and programme work

# **About this unit**

This unit covers two important functions carried out when programming work in horticultural and other landscape areas. You need to estimate the following resource requirements:

- labour
- equipment
- materials
- finance
- specific expertise

You are also required to sequence and programme the above when planning work.

This work may be internal to the organisation or carried out on a contract basis for a client.

In both elements there is an important requirement for work to be programmed efficiently so that it meets contract targets and with the minimum of wastage.

# Element L26.1 Estimate the resources required by programmes

# What you must be able to do:

- identify the nature, extent, required outcome and standards of proposed work clearly and accurately
- 2 identify required **resources** which are appropriate to the **programme** and arranged to avoid wastage
- 3 ensure timing of **resource** requirements work can proceed without delay
- 4 make resources available as required

#### This standard covers:

- A. programmes:
- (i) soft landscape
- (ii) hard landscape
- (iii) interior landscape
- B. resources:
- (i) labour
- (ii) equipment
- (iii) materials
- (iv) finance
- (v) specific expertise

- (a) the project planning and methods of estimating resource requirements
- (b) the effects of available options on level of cost
- (c) the effects of timing of resource provision on costs and completion
- (d) the methods to optimise resource usage and timing and minimise waste
- (e) the implications of estimating and arranging resources for both horticultural and landscape projects
- (f) a variety of suppliers of resources

# Element L26.2 Sequence and programme work

# What you must be able to do:

- 1 ensure the work **programme** takes full account of the available **resources**
- 2 provide a sequence of work which meets agreed targets efficiently and effectively
- 3 use a work **programme** which enables work to be completed on time, safely and to the standard required
- 4 communicate the work **programme** effectively and in time to all **relevant people**

#### This standard covers:

# A. programmes:

- (i) soft landscape
- (ii) hard landscape
- (iii) interior landscape

#### B. resources:

- (i) labour
- (ii) equipment
- (iii) materials
- (iv) finance
- (v) specific expertise

# C. relevant people:

- (i) colleagues
- (ii) sub-contractors
- (iii) clients

- (a) project planning and monitoring
- (b) realistic work rates for the work types programmed
- (c) the methods of sequencing work to achieve targets
- (d) performance measures
- (e) the possible causes of disruption to work programmes and their effects on quality and timing
- (f) the sources of hazard encountered on landscape maintenance and measures for their reduction
- (g) the principles and application of risk assessment

Unit EC2	Survey and report on the condition of the environment
Element EC2.1 Element EC2.2	Collect and record data on landscapes and habitats Report on the condition of landscapes and habitats

#### About this unit

This unit is concerned with conducting basic survey work through counting, sampling and mapping, and using these methods to report on the condition of the environment. The term 'survey' is open to broad interpretation due to the wide range of surveys that are carried out in different contexts, using a range of techniques. The surveys are likely to be of *equivalent complexity* to the 'Phase One' and Phase Two standardised habitat survey system originally devised by the Nature Conservancy Council (NCC). These may include:

- surveys of plants: EN Grazing index of heather moorland; the presence or abundance of a particular species (woody or non-woody); the effects of management (increasing or decreasing species abundance) within a particular area. encroachment of cord grass (Spartina); the effects of excluding grazing animals from a particular area.
- surveys of animals: wide ranging, an example would be butterfly transects; the increase/decrease in numbers and diversity of butterflies in a newly created woodland glade; nest-box surveys; wader counts; dragonfly species and abundance.
- surveys of people: number of visitors using particular routes; visitor interviews or questionnaires; local support for a project.
- surveys of physical features: status of boundary hedges, walls or fences; status of retaining banks or bunds on a wetland; damage or erosion being caused to river banks by visitors.
- surveys of habitat types: NCC Phase One habitat survey; mapping of areas to show habitat types; mapping and counting of indicator species for an ancient woodland or hedgerows.
- surveys of access networks: the condition of a footpath network and ancillary structures (signs, handrails, access points); the level of erosion to an upland footpath; the effectiveness of 'motor-bike traps' on a bridleway.

Surveys must be of real sites or subjects and, where possible, should be carried out with the intention that the results will be used by your organisation or a client.

In all cases your organisation would be expected to provide you with a specification against which you would carry out the survey. Although you are not expected to have extensive identification skills, you should be familiar with the use of keys and field guides, and have an understanding of the methods used to survey all the subjects listed within the unit. In most surveys you will be expected to use both primary and secondary sources of data. Primary data is what you collect yourself, but it is important, in addition, to find out and use whatever information is already in existence about your subject. This is your secondary source of data, and may well determine how your survey should be designed, so that a direct comparison may be made with earlier work.

This unit also covers reporting on the findings of surveys that you have carried out. The reports may be relatively informal, for example, a map and field notes, or verbal reports. Whatever method is used the report must contain accurate information that is presented in the format required by your organisation.

You will be expected to carry out these activities under instruction and supervision from your line manager, but you must understand why such survey work is necessary and where and how it fits into the records kept by the commissioning organisation. You will also need to recognise when you need assistance or further information to complete the task. You must always carry out these activities in a safe and effective way.

# Element EC2.1 Collect and record data on landscapes and habitats

# What you must be able to do:

- 1 clearly establish your role and responsibilities in the **survey** activity
- 2 select and use survey techniques in accordance with the survey specification
- 3 collect **data** that meets the requirements of the survey specification
- 4 record all data legibly, fully and in the format specified
- 5 take the appropriate prompt action where **data** cannot be obtained in accordance with the specification
- 6 carry out all **survey** activities in accordance with relevant health and safety requirements and legislation
- 7 ensure that the effects of your work and access do not adversely affect the environment

#### This standard covers:

- A. **surveys** on the following:
- (i) plants
- (ii) animals
- (iii) people
- (iv) physical features
- (v) habitat types
- (vi) access networks
- B. collect data:
- (i) quantitative
- (ii) qualitative
- C. sources of data:
- (i) primary
- (ii) secondary

- (a) how to identify hazards and assess risks
- (b) how to interpret risk assessments
- (c) your role and responsibilities in relation to survey activity
- (d) the range of survey techniques available, their advantages and disadvantages and principles of use
- (e) potential sources of data, their advantages and disadvantages and principles of use
- (f) effective means of recording the data collected
- (g) the actions to take if there is difficulty in obtaining data
- (h) your responsibilities under health and safety and other relevant legislation
- (i) the environmental value of survey sites, the potential effects of your work on the site
- (j) actions to take in case of incidental damage to habitat, wildlife and landscape

# Element EC2.2 Report on the condition of landscapes and habitats

# What you must be able to do:

- 1 write accurate, legible and complete **reports** which contain the necessary supporting data
- 2 respond to requests for further clarification and explanation of **reports** clearly and accurately
- 3 report within the required timescale and in accordance with organisational procedure

#### This standard covers:

- A. report on the following:
- (i) plants
- (ii) animals
- (iii) people
- (iv) physical features
- (v) habitat types
- (vi) access networks
- B. **report** to the following:
- (i) line manager
- (ii) colleagues
- (iii) a specialist

- (a) the required content of the reports
- (b) ways of presenting information clearly and in a manner appropriate to the intended user
- (c) the intended purpose of the reports
- (d) methods of communicating clearly
- (e) the timescale within which reporting must take place and the reasons for this

Unit CU3	Promote, monitor and maintain health, safety and security
Element CU3.1 Element CU3.2 Element CU3.3	Monitor and maintain the health, safety and security of the workplace Promote good standards of health and safety Respond to health emergencies within the workplace

#### **About this unit**

It is the responsibility of all individuals, in all working contexts, to operate to certain standards of health, safety and security. The unit covers three key activities that are required: the first to prevent (as far as possible) any accidents or emergencies from occurring, the second to promote good health and safety practice and the third, to respond to accidents within the workplace.

The first element is about monitoring and maintaining the safety and security of the workplace. An important aspect of this element is risk assessment. You are expected to conduct a risk assessment prior to work activities, and to take action to minimise the potential risks to yourself and others within the workplace.

The second element covers the promotion of good standards of health and safety. The word promotion is used to mean encouraging good standards as well as implementing them personally. Work activities must adhere to health and safety codes of practice and relevant legislation. You must also minimise any potential environmental damage due to work activities.

The third element covers emergency aid to individuals who have had an accident in the workplace. This covers the actions that must be taken by those who are first on the scene. This will entail carrying out initial actions that are relevant to the condition and summoning help.

# Element CU3.1 Monitor and maintain the health, safety and security of the workplace

# What you must be able to do:

- maintain the safety and security of the working environment in accordance with relevant legal and organisational requirements
- 2 review existing risk assessments for routine work activities
- assess the risks involved prior to undertaking new or non-routine work activities, recommend control measures and ensure agreed measures are applied
- 4 select and apply the correct measures to control risk from routine work activities
- communicate any health and safety precautions that are being applied in the workplace to others entering the area
- 6 use **equipment** and materials correctly according to relevant legislation and organisational requirements
- 7 manage **waste** correctly in accordance with relevant legal and organisational requirements
- 8 follow standard procedures for personal hygiene at all times
- 9 implement safety procedures safely, correctly and without delay in an emergency situation
- 10 keep health, safety and security records which are accurate, legible and complete
- 11 perform work activities in a manner which minimises environmental damage

#### This standard covers:

- A. equipment:
- (i) manually operated equipment
- (ii) powered equipment
- B. waste:
- (i) hazardous waste
- (ii) non-hazardous waste

- (a) your legal and organisational responsibility in relation to health, safety and security
- (b) the difference between 'hazard' and 'risk' and how to assess risk
- (c) the hierarchy of measures to control risks (including elimination, substitution, relevant engineering controls, safe systems of work, training/instruction and personal protective equipment)
- (d) the risks which arise from routine work activities and the measures to control them
- (e) the importance of assessing risks from new and non-routine work activities
- (f) the need to communicate health and safety precautions to others entering the area
- (g) safe methods of using and storing equipment and materials
- (h) how hazardous and non-hazardous waste should be managed
- (i) security issues associated with the workplace and what actions to take
- (i) the relationship of extinguisher to fire type (electrical, chemical, combustible material)
- (k) procedures for different types of emergencies relevant to the industry in which you are working
- (I) any specific risks relevant to child safety from your work
- (m) your responsibility for maintaining health and safety records
- (n) the ways in which environmental damage must be minimised during work activities

# Element CU3.2 Promote good standards of health and safety

# What you must be able to do:

- assess the risk to yourself and others when carrying out work and take the necessary actions to minimise any potential dangers
- wear **clothing** which is consistent with recognised good health and safety practice
- 3 use approved safe methods and systems when carrying out work
- 4 encourage and support others with whom you are working to maintain their own health and safety during work
- 5 perform your work in a manner which minimises environmental damage
- stop work immediately if there is a danger of accidents or injury and take the correct action
- 7 maintain accurate information regarding your whereabouts so that contact can be made should this be necessary
- 8 keep health and safety records which are accurate, legible and complete

#### This standard covers:

- A. wear the following **clothing** for the work:
  - (i) dress for general work
- (ii) personal protective equipment according to the work involved

- (a) the contribution that good standards of health and safety make to the management and efficiency of the business or organisation
- (b) the effect that your actions have on the attitudes of other workers towards health and safety
- (c) the importance of discussing and agreeing how individuals are to work for safe coordination of their activities
- (d) safe lifting and handling techniques
- (e) safe methods of working with potentially hazardous equipment and the relevant legislation and guidelines related to this
- (f) safe methods and systems of working with hazardous materials and the relevant legislation related to this
- (g) methods for minimising environmental damage during work
- (h) effective methods of promoting good health and safety practice to others
- (i) the types of accidents or injury which may occur and the correct actions to take
- (j) the reasons for providing information on whereabouts
- (k) the records which it is necessary to keep under relevant legislation and your personal responsibility for maintaining these

# Element CU3.3 Respond to health emergencies within the workplace

# What you must be able to do:

- summon assistance immediately for any health emergency and initiate action appropriate to the condition and **situation**
- 2 give assistance with ongoing care as required
- 3 provide the individual with the health emergency with suitable verbal support
- 4 make the immediate vicinity as private and safe as possible once the intervention has been taken over by an appropriate person
- 5 offer support to any others involved in the incident once any initial danger is passed
- 6 keep records which are accurate, legible and complete

- (a) the required action to take for the health emergency concerned
- (b) your own competence in dealing with the health emergency
- (c) the reasons for calling for assistance immediately
- (d) the importance of not carrying out actions beyond your own capabilities
- (e) the reasons why actions beyond your level of competence may further endanger life
- (f) effective ways of providing support to those suffering a health emergency and of keeping them in the best possible condition
- (g) the effects of shock on individuals with a health emergency and ways of dealing with this effectively
- (h) the type of verbal support which can be provided to the individual suffering the health emergency
- (i) potential health risks to others from an emergency
- (j) reasons for offering support and help to others involved in the incident and how this should be achieved
- (k) relevant legislative requirements for completing records of accidents and emergencies
- (I) location and use of accident book and first aid equipment

Unit C	CU28	Prepare for and maintain equipment and machines
	ent CU28.1 ent CU28.2	Prepare equipment and machines for maintenance Maintain and repair equipment and machines

#### About this unit

This unit concerns the maintenance and repair of equipment and machines. Maintenance may be periodic or seasonal. Maintenance may also be required due to equipment malfunction. You are required to be competent in relation to routine maintenance of equipment, and in relation to fault identification and rectification. Important health and safety considerations within this unit include; the handling of stored energy (e.g. springs, belt tension, hydraulic pressure or electrical discharge), the use of hazardous substances and the disposal of waste products.

You will need to pre pare equipment or machines for maintenance, and carry out the required maintenance procedures. On completion of these procedures, the equipment or machines must be returned to good working order. Tools used to carry out the maintenance procedures are likely to include hand tools and power tools. Waste materials may include hazardous and non-hazardous materials. You are expected to be competent in dealing with both such forms of waste.

The unit covers manual (hand operated) and mechanical (engine driven) equipment and machines. This unit excludes hand tools

This unit covers preparing a maintenance schedule/plan for the following equipment and machines at your place of work for both manual and mechanical.

# Element CU28.1 Prepare equipment and machines for maintenance

# What you must be able to do:

- 1 obtain the relevant information and authorisation for the **maintenance** procedure
- 2 identify the **equipment and machines** requiring **maintenance**
- 3 make sure the **equipment and machines** for **maintenance** are safe, and completely isolated from the power source
- 4 minimise dangers from contamination and hazardous chemicals
- 5 keep the work area safe and in a condition suitable for the **maintenance** procedure
- 6 obtain the appropriate tools and materials for the maintenance procedures
- 7 complete the preparation of **equipment and machines** for **maintenance** in accordance with manufacturers instructions
- 8 identify the relevant components for disassembly and re-assembly purposes
- 9 maintain health and safety in accordance with relevant legislation and codes of practice
- 10 Prepare a maintenance schedule\plan

# This standard covers:

- A. maintenance schedule\plan for equipment and machines:
- (i) manual
- (ii) mechanical

# B. equipment and machines:

- (i) manual
- (ii) mechanical

# C. maintenance:

- (i) routine
- (ii) breakdown

- (a) circumstances in which authorisation must be obtained prior to maintenance
- (b) information required for the maintenance procedure and how it should be obtained
- (c) methods for preparing equipment and machines
- (d) how to prepare a maintenance schedule\plan
- (e) health and safety in relation to the preparation of equipment and machines for maintenance and the usage of the work area
- (f) the dangers created by stored energy and how these should be responded to during the preparation stage
- (g) hazardous chemicals and substances which may be present and ways in which they should be dealt with
- (h) the type of tools, equipment and materials required for the maintenance procedure
- (i) the ways, and reasons, for making equipment and machinery for dis-assembly and re-assembly purposes
- (j) types of protective clothing and the reasons why it must be worn
- (k) the correct ways of wearing protective clothing
- (I) the location of stored equipment and any associated components
- (m) organisational health and safety policy and your specific responsibilities under health and safety legislation

# Element CU28.2 Maintain and repair equipment and machines

# What you must be able to do:

- assess the **maintenance** requirements based on the condition and use of the **equipment and machines**
- 2 maintain health and safety in accordance with relevant legislation and codes of practice
- 3 minimise the escape of substances and dispose of **waste** in a safe manner and place
- 4 identify, remove and replace worn and damaged components in accordance with manufacturers instructions
- where replacement components are unavailable, safely store the **equipment and machinery**, and take the appropriate action to obtain the suitable replacements
- 6 carry out the **maintenance** in accordance with manufacturers instructions, standard procedure and legislation
- 7 identify the need for expert advice and assistance and promptly refer this matter to the appropriate member of staff
- 8 make sure that **stored equipment and machines** are safe, secure and appropriately protected from any adverse conditions
- 9 carry out the correct tests on completion of the maintenance procedure to confirm the machinery/equipment is returned to good working order
- 10 clean, service and store maintenance tools after use
- 11. keep appropriate records

# This standard covers:

- A. maintenance:
- (i) routine
- (ii) breakdown
- B. equipment and machines:
- (i) manual
- (ii) mechanical
- C. waste:
- (i) hazardous
- (ii) non-hazardous

- (a) methods for the diagnosis of faults and the identification of the root cause
- (b) routine maintenance requirements and why these must be adhered to
- (c) factors which impact on the value of continuing with the procedure such as cost of repair, estimated working life, immediate needs for the equipment/machinery use
- (d) the reasons and methods for maintaining equipment and machines
- (e) the possible consequences of not maintaining equipment and machines
- (f) legislative requirements relating to the maintenance of equipment and machinery, and the work area
- (g) hazardous chemicals and substances which may be present and ways of minimising leakage
- (h) safe and appropriate methods for disposing of waste materials
- (i) components that require periodic replacement and the reasons for this
- (j) procedures for obtaining replacement components
- (k) safe and appropriate methods of storing equipment and machinery
- (I) how and where to obtain expert advice in relation to maintenance
- (m) the necessary post-maintenance checks
- (n) organisational health and safety policy and your responsibilities under health and safety legislation
- (o) how to keep appropriate records

Unit CU81	Prepare and apply pesticides
Element CU81.1 Element CU81.2 Element CU81.3	Prepare for pesticide application Apply pesticides Carry out post-application procedures

#### About this unit

This unit is about applying pesticides in accordance with instructions and legislation . Before attempting this unit, candidates must hold a relevant certificate of competence in the safe use of pesticides

It covers the work that a skilled operative must carry out. This involves preparing for the application of pesticides, applying the pesticides, and the actions to take on completion of operations in accordance with current legislation.

Element 1 covers preparing for pesticide application. This includes confirming that the product and equipment is suitable for the work, making sure people are fully informed, and checking that the conditions remain suitable for the work. This element covers everything that has to be done up to the point of opening the containers.

Element 2 is about the application of pesticides. You must use the equipment and product according to instructions and legislation. You will also need to keep good records of these operations. Where problems occur you will need to take action to resolve the situation, or stop work and report the situation to your manager.

Element 3 covers the work activities immediately following pesticide application. This includes; the cleaning and decontamination of equipment, and clearing the site.

In this unit personal protective equipment (PPE) includes; gloves, face shields, appropriate boots, coveralls and disposable items. It will also include respiratory protective equipment (RPE) for the application of some pesticides/products. The term 'ancillary equipment' in the unit is used to apply to mixing and measuring equipment, and containers. The calibration of equipment is covered in the first element in (6) and (I).

# Element CU81.1 Prepare for pesticide application

#### What you must do:

- 1 transport and store pesticides and containers according to legislation and the plan
- 2 confirm that the product is appropriate for the work
- 3 confirm that the application complies with the conditions of approval
- 4 confirm that personal protective equipment is in good condition, the correct size and suitable for the work
- 5 obtain the necessary **equipment** for the work in accordance with the plan
- 6 maintain and set up the equipment correctly
- 7 calculate the minimum application rate to achieve the desired level of control
- 8 select a suitable site for preparation
- take action to minimise any risks and keep the appropriate people fully informed according to instructions
- 10 confirm that the environmental conditions are appropriate for the work to be carried out
- 11 confirm that the necessary **procedures** have been put in place
- make sure your work complies with health and safety, and environmental requirements, and is in accordance with legislation and instructions

#### This standard covers:

- A. equipment:
- (i) application equipment
- (ii) ancillary equipment
- (iii) personal protective equipment

# B. procedures:

- (i) transportation
- (ii) storage
- (iii) disposal
- (iv) emergency
- (v) incident reporting

- (a) the significance of the product labels and the information included in the product labels
- (b) the appropriateness of specific pesticide products for the work
- (c) the selection and use of personal protective equipment and ancillary equipment
- (d) the health and safety, and environmental risks in the methods of controlling pests
- (e) the relevance of risk assessment to the application, including the importance of buffer zones
- (f) people that need to be informed of the work plan
- (g) your responsibilities under Legislation and codes of practice
- (h) the equipment necessary to carry out the work
- (i) how to maintain, set up and appropriately calibrate equipment
- (j) how to calculate the amount of pesticide required
- (k) procedures for preparing the pesticide product
- (I) the environmental conditions which are required for the work to be carried out and the affect which these conditions have on the operations
- (m) the necessary growth stage of the plants for treatment to take place
- (n) how to transport, store and dispose of pesticides and containers safely and correctly

# Element CU81.2 Apply pesticides

# What you must do:

- 1 use the correct preparation procedures in accordance with instructions
- 2 use all **equipment** correctly in accordance with instructions
- apply the pesticide in accordance with instructions and legislative requirements to achieve the optimum effect
- 4 apply the pesticide in a way which minimises the risks to non-target species and the environment
- take the appropriate action without delay when **problems** arise during the work
- 6 transport and store pesticides and containers according to legislation and instructions
- 7 make sure that your work complies with health and safety, and environmental requirements, and is in accordance with legislation and instructions

# This standard covers:

# A. equipment:

- (i) application equipment
- (ii) ancillary equipment
- (iii) personal protective equipment

# B. **problems**:

- (i) spillage
- (ii) contamination of equipment and non-target areas
- (iii) malfunction of equipment
- (iv) adverse effects on non-target species
- (v) changes in conditions which reflect on the relevance of the work plan
- (vi) emergency

- (a) health and safety risks in controlling pests and diseases
- (b) environmental risks in controlling pests and diseases
- (c) your responsibilities under Legislation and codes of practice
- (d) the relevant methods of applying the chosen pesticides
- (e) the safe handling and use of pesticides
- (f) the correct operation of the applicator
- (g) the broad types of equipment used for pesticide application in your industry
- (h) problems which may occur during the work and how to respond to them effectively
- (i) the dangers and emergency treatments associated with the use of pesticides
- (j) the reasons for keeping records and their format

# Element CU81.3 Carry out post-application procedures

# What you must do:

- utilise or dispose of surplus product according to legislation, instructions and codes of practice
- 2 dispose of containers and unwanted personal protective equipment safely and correctly
- 3 clean the application equipment and clear the site thoroughly
- 4 maintain personal hygiene throughout
- 5 maintain and store the **equipment\_correctly** after use
- 6 clean, decontaminate, store and where necessary dispose, personal protective equipment correctly
- 7 keep your records accurate, legible and complete
- 8 make sure your work complies with health and safety, and environmental requirements, and is in accordance with legislation and instructions

#### This standard covers:

- A. maintain and store the following **equipment**:
- (i) application equipment
- (ii) ancillary equipment
- (iii) personal protective equipment

- (a) the ways in which surplus product and washings must be used or disposed of
- (b) how to dispose of, or clean and decontaminate personal protective equipment, including; gloves, face shields, boots and overalls
- (c) how to clean the application equipment and clear the site
- (d) the reasons for washing hands and maintaining personal hygiene
- (e) where and how to store equipment after use
- (f) the reasons for keeping records and their format
- (g) the procedures for maintaining personal hygiene
- (h) your responsibility under Legislation and codes of practice

# Unit CU120 Manage information for action

Element CU120.1 Gather required information Element CU120.2 Inform and advise others

Element CU120.3 Hold meetings

#### About this unit

This unit was produced by the Management Charter Initiative. However, you do not need to be a supervisor or manager to achieve this unit.

This unit is about the efficient management of information within your area of responsibility. It covers gathering the information you need, providing information and advice to others, and holding meetings.

This unit is for you if you are a manager or supervisor with

- a tightly defined area of responsibility
- some limited opportunity for taking decisions and managing budgets
- responsibility for achieving specific results by using resources effectively, and
- responsibility for allocating work to team members, colleagues or contractors

This unit contains three elements

CU120.1 Gather required information

CU120.2 Inform and advise others

CU120.3 Hold meetings

In order to *gather required information*, you need to collect information which is relevant to your work, and make sure it is accurate and sufficient for your purposes. You need to deal effectively with any problems you may have in gathering information and you need to record and store this information properly.

In order to *inform and advise others*, you need to provide information and advice in ways which meet the needs of the recipients. You need to make sure the information and advice is accurate, up-to-date and in line with your organisation's policies and procedures. You also need to check that the information is understood by the recipients.

In order to *hold meetings*, you have to provide adequate notice to those who are attending, outline the meeting's purpose and objectives, help other people to make useful contributions, and keep the discussions on course. You need to ensure that the objectives of the meeting are achieved in the time available and that the results of the discussions are communicated to those who need to know.

# Element CU120.1 Gather required information

# What you must be able to do:

- 1 ensure that the **information** you gather is accurate, sufficient and relevant to the purpose for which it is needed
- 2 take prompt and effective action to overcome problems in gathering relevant **information**
- 3 record and store the **information** you gather according to your organisation's **systems** and procedures
- 4 ensure that the **information** you gather is accessible in the required format to authorised people only
- 5 identify possible improvements to **systems and procedures** and pass these on to the relevant people.

#### This standard covers:

- A. information:
- (i) quantitative
- (ii) qualitative
- B. systems and procedures:
- (i) formal
- (ii) informal.

# What you must know and understand:

Analytical techniques

- (a) how to assess the effectiveness of current methods of gathering and storing information *Information handling*
- (b) the importance of gathering, validating and analysing information to team and organisational effectiveness and your role and responsibility in relation to this
- (c) the types of qualitative and quantitative information which are essential to your role and responsibilities
- (d) how to gather the information you need for your job
- (e) the types of problems which may occur when gathering information and how to overcome these
- (f) how to record and store the information you need

Organisational context

(g) the procedures to follow in order to make recommendations for improvements to systems and procedures.

#### Element CU120.2 Inform and advise others

# What you must be able to do:

- give **information and advice** at a time and place, and in a form and manner, appropriate to the needs of **recipients**
- ensure that the **information** you give is accurate, current, relevant and sufficient
- 3 ensure that the advice you give is consistent with your organisation's policy, procedures and resource constraints
- 4 use reasoned arguments and appropriate evidence to support your advice
- 5 check and confirm **recipients**' understanding of the **information and advice** you have given them
- 6 maintain confidentiality according to your organisation's requirements
- seek feedback from **recipients** about the **information and advice** you provide, and use this feedback to improve the ways in which you give **information and advice**

#### This standard covers:

# A. information and advice:

- (i) spoken
- (ii) written

# B. recipients:

- (i) team members
- (ii) colleagues working at the same level
- (iii) higher-level managers or sponsors
- (iv) people not part of your organisation

# What you must know and understand:

#### Communication

- (a) how to give information and advice effectively both orally and in writing
- (b) how to develop and present a reasoned case when providing advice to others
- (c) the importance of confirming the recipient's understanding of the information and advice you have provided and how to do this
- (d) the importance of seeking feedback on the quality and relevance of the advice and information provided, and how to encourage and enable such feedback

# Information handling

- (e) the importance of providing information and advice to others and your role and responsibility in relation to this
- (f) the types of information and advice which other people may require
- (g) the importance of checking the validity of information and advice provided to others and how to do this
- (h) the principles of confidentiality when handling information and advice; the types of information and advice which may be provided to different people

# Organisational context

(i) organisational policies, procedures and resource constraints which may affect advice and information you give to others

# Element CU120.3 Hold meetings

# What you must be able to do

- 1 give sufficient notice of the **meeting** to allow the necessary people to attend
- 2 make clear the **purpose** and objectives of the **meeting** at the start
- 3 ensure that your style of leadership helps people to make useful contributions
- 4 discourage unhelpful arguments and digressions
- 5 ensure that the **meeting** achieves its objectives within the allocated time
- 6 give clear, accurate and concise information about outcomes of the **meeting** promptly to those who need it

# This element covers:

# A. meetings:

- (i) involving people within your organisation
- (ii) involving people outside your organisation

# B. purposes:

- (i) information giving
- (ii) consultation
- (iii) decision making

# What you must know and understand:

# Communication

(a) how to identify unhelpful arguments and digressions, and strategies which may be used to discourage these

# Leadership styles

(b) the styles of leadership which can be used to run meetings and how to choose a style according to the nature of the meeting

# Meetings

- (c) the value and limitations of meetings as a method of exchanging information and making decisions
- (d) how to determine when a meeting is the most effective way of dealing with issues; the possible alternatives which you may use
- (e) the importance of determining the purpose and objectives of meetings and how to do so
- (f) how to manage discussions so that the objectives of the meetings are met within the allocated time

# Organisational context

- (g) how to determine who are the necessary people to attend the meeting
- (h) procedures to follow when calling meetings and preparing for them

# A1 Manage your own resources (Management Standards)

#### **About this unit**

This unit is mainly about making sure you have the personal resources (particularly knowledge, understanding, skills and time) to undertake your work role and reviewing your performance against agreed objectives. It also covers identifying and undertaking activities to develop your knowledge, skills and understanding where gaps have been identified.

The unit is recommended for team leaders.

Listed below are the main generic skills which need to be applied in managing your own resources. These skills are explicit/implicit in the detailed content of the unit and are listed here as additional information.

- Setting objectives
- Communicating
- Planning
- Time management
- Evaluating
- Reviewing
- Learning
- Obtaining feedback
- Self-assessment

Context specific knowledge and understanding

- 1 The agreed requirements of your work-role including the limits of your responsibilities.
- 2 Your agreed personal work objectives.
- 3 The reporting lines in your organisation.
- 4 Your current knowledge, understanding and skills.
- 5 Identified gaps in your current knowledge, understanding and skills.
- 6 Your personal development plan.
- 7 Your organisation's policy and procedures in terms of personal development.
- 8 Available development opportunities and resources in your organisation.
- 9 Possible sources of feedback in your organisation.

# A1 Manage your own resources

# What you must be able to do:

- 1 identify and agree the requirements of your work-role with those you report to
- 2 discuss and agree personal work objectives with those you report to and how you will measure progress
- identify any gaps between the requirements of your work-role and your current knowledge, understanding and skills
- discuss and agree, with those you report to, a development plan to address any identified gaps in your current knowledge, understanding and skills
- 5 undertake the activities identified in your development plan and discuss, with those you report to, how they have contributed to your performance
- get regular and useful feedback on your performance from those who are in a good position to judge it and provide you with objective and valid feedback
- discuss and agree, with those you report to, any changes to your personal work objectives and development plan in the light of performance, feedback received, any development activities undertaken and any wider changes
- 8 check, on a regular basis, how you are using your time at work and identify possible improvements
- 9 ensure that your performance consistently meets or goes beyond agree requirements

#### This standard covers:

- 1 you recognise changes in circumstances promptly and adjust plans and activities accordingly
- 2 you prioritise objectives and plan work to make best use of time and resources
- 3 you take personal responsibility for making things happen
- 4 you take pride in delivering high quality work
- 5 you agree achievable objectives for yourself and give a consistent and reliable performance
- 6 you find practical ways to overcome barriers
- you make best use of available resources and proactively seek new sources of support when necessary

- 1 why managing your resources (particularly knowledge, understanding, skills and time) is important
- 2 how to identify the requirements of a work-role
- 3 how to set work objectives which are SMART (Specific, Measurable, Achievable, Realistic and Timebound)
- 4 how to measure progress against work objectives
- bow to identify development needs to address any identified gaps between the requirements of your work-role and your current knowledge, understanding and skills
- 6 what an effective development plan should contain
- the type of development activities which can be undertaken to address identified gaps in knowledge, understanding and skills
- 8 how to identify whether/how development activities have contributed to your performance
- 9 how to get and make effective use of feedback on your performance
- how to update work objectives and development plans in the light of performance, feedback received, any development activities undertaken and any wider changes.
- 11 how to record the use of your time and identify possible improvements
- 12 industry/sector requirements for the development or maintenance of knowledge, understanding and skills